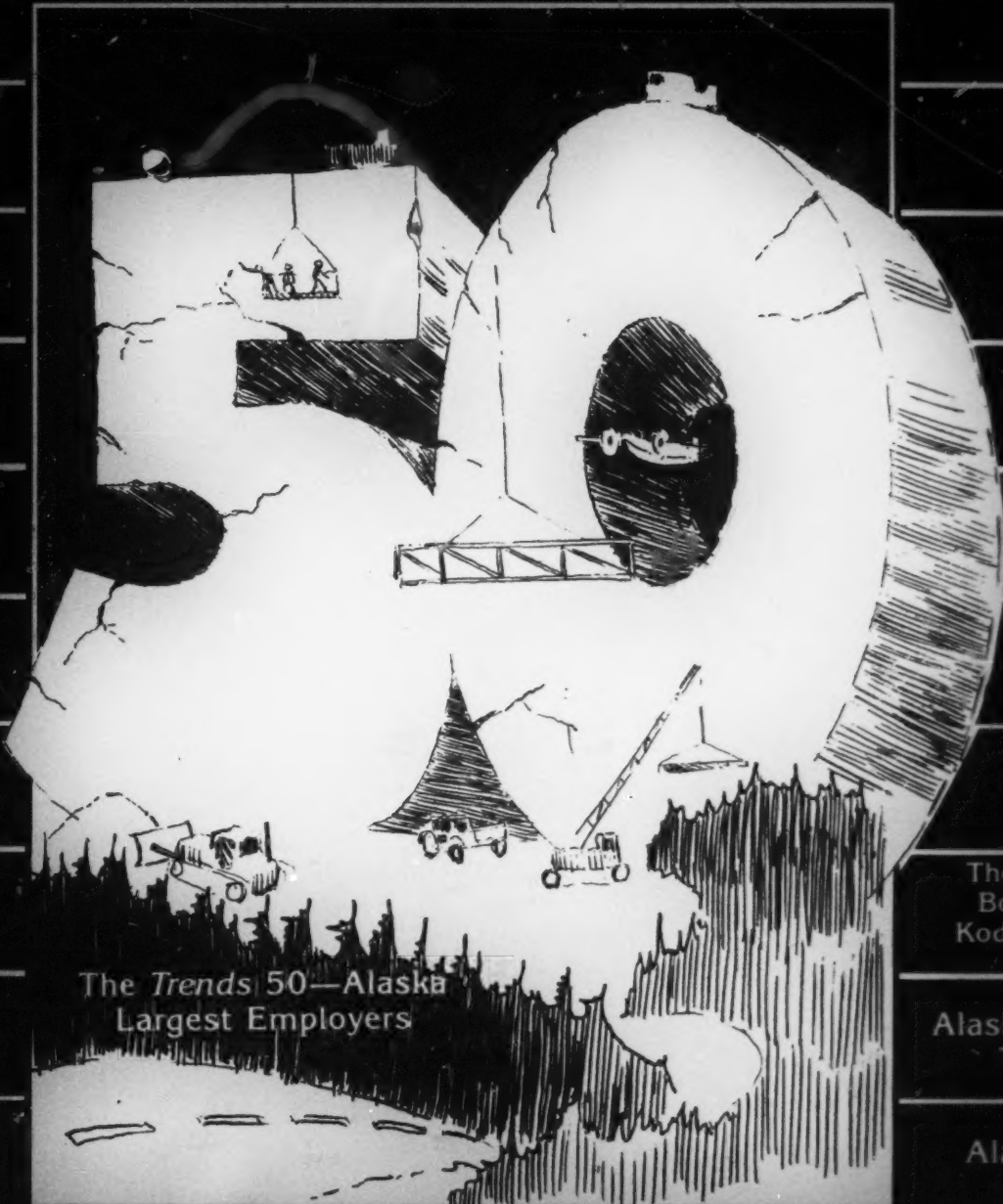


ALASKA ECONOMIC TRENDS

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July
1988



The Trends 50—Alaska's
Largest Employers

The Center of Alaska's
Bottomfish Grounds;
Kodiak and the Aleutian
Islands

Alaska Wage Rates—Are
They Declining?

Alaska's Employment
Scene

Alaska Economic Trends

Steve Cowper, Governor, State of Alaska

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**July 1988
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Alaska Economic Trends is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

We welcome contributions on current economic issues from our readers. For a copy of our editorial policy contact John Boucher, Editor, Alaska Economic Trends, Alaska Department of Labor, P.O. Box 25501, Juneau, Alaska 99802-5501.

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

The Trends 50—Alaska's Largest Employers

By Greg Huff

For the second year the Alaska Department of Labor and *Alaska Economic Trends* has produced a list of Alaska's largest private employers—the Trends 50.¹ These employers represent only a small percentage of private business establishments operating in Alaska (less than 2%), but their employment levels account for over one-fifth of all private sector jobs in Alaska and an even greater portion of wages and salaries. The Trends 50, though few in number, are a major force in the Alaskan economy.

In 1986, Alaska's 50 largest private employers ranged in size from 2,600 down to 300 employees and encompassed a variety of industries—from oil and gas production to private social service agencies. In total they employed 31,294 in 1986, 20.6% of total private employment (Figure 1). Including government employment, which totaled 66,680 in 1986, the Trends 50 represented a sizeable proportion of total statewide wage and salary employment (14.3%).

The Trends 50 paid a billion dollars in wages in 1986, 25% of all wages paid by private employers in the state. On average they tend to pay higher wages and salaries than other firms. The average monthly pay in 1986 for employees working for Trends 50 employers was \$2,620 compared to the average private monthly pay of \$2,230. (The average includes Trends 50 employers.)

Trends Top 50 employers tended to weather Alaska's economic downturn better, although several firms had significant employment declines. Six employers dropped out of the 1986 list. These include three construction firms, a retail establishment an airline and a bank. The new firms include two seafood processors, a hotel, a construction company, a company catering to the air transportation industry and one health care firm (see table 1, where * designates a new Trends 50 firm).

The highest debut in the Trends 50 was a seafood processor, International Seafoods of Alaska. They burst into the Trends 50 as the 23rd largest employer in the state. Brown & Root USA, Inc. was the second highest newcomer in 1986 at number 32.

When examining the rankings in Table 1, the annual average data obscure seasonal fluctuations in employment levels. The seasonal fluctuations result in shifts in the ranking during the year. The primary examples are the seafood processing and construction industries. During the summer seafood processing employment levels peak and the rank of the processors climbs considerably, but their ranking falls as quickly when the peak season ends.

Industry Breakout

Of the 31,294 jobs among Trends 50 employers in 1986, the trade industry had the largest number of jobs and construction the fewest. Trade also had the most firms on the list. These 14 firms represented over a quarter of total employment among Alaska's 1986 Trends 50. illustrated in Figure 2 is the industry breakdown of

We would like to thank the employers for their cooperation and time in responding to our short survey. The survey enabled us to provide this information and we hope in the years to come that we may continue providing information about the Trends 50.

Figure 1
The Trends 50
Percent of Total Private Employment

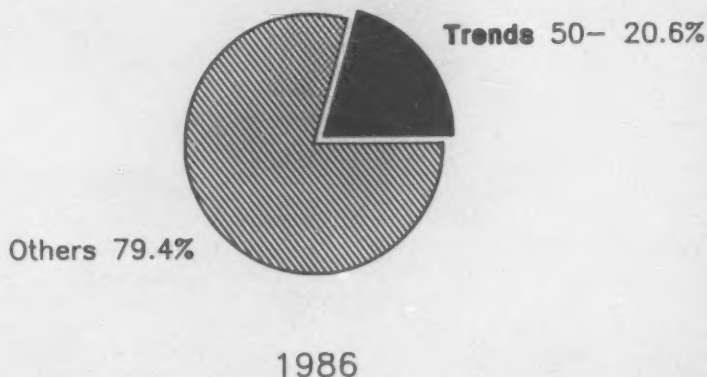


Table 1
Alaska Economic Trends
Top 50 Employers
(based on 1986 average employment)

1986 Rank	1985 Rank	Employment Firm	Employment 1986	1987/a	Industry	Area	Headquarters or Largest Site
1	1	Arco Alaska, Inc.	2,609	2,661	Oil & Gas Production	Statewide	Anchorage/Northern
2	2	Carr-Gottstein Inc. ¹	2,248	2,209	Retail-grocery	Statewide	Anchorage
3	3	Providence Hospital	1,643	1,618	Hospital	Anchorage	Anchorage
4	4	Standard Alaska Production Co.	1,399	1,290	Oil & Gas Production	Statewide	Anchorage/Northern
5	5	Lutheran Hospital & Homes Society ²	1,087	1,094	Health Care	Statewide	Fairbanks
6	7	National Bank of Alaska	920	806	Banking	Statewide	Anchorage
7	6	Alascom Inc.	914	874	Telephone Communications	Statewide	Anchorage
8	9	Safeway Stores Inc.	908	899	Retail-grocery	Statewide	Anchorage
9	11	VECO Inc.	893	805	Oil Field Services	Statewide	Anchorage/Northern
10	8	Alyeska Pipeline Services Co. Inc.	868	878	Pipeline	Statewide	Anchorage
11	10	First National Bank of Anchorage	768	703	Banking	Statewide	Anchorage
12	12	Alaska Airlines Inc.	755	734	Air Carrier	Statewide	Anchorage
13	15	Alaska U.S.A. Federal Credit Union	685	654	Credit Union	Statewide	Anchorage
14	22	Ketchikan Pulp Co.	670	723	Pulp & Lumber Products	Statewide	Ketchikan
15	17	MarkAir	651	628	Air Carrier	Statewide	Anchorage
16	14	Humana Hospital Alaska Inc.	628	618	Hospital	Anchorage	Anchorage
17	34	All Alaskan Seafoods	612	478	Seafood Processing	Statewide	Kodiak
18	13	McDonalds ³	600	687	Retail-eating establishments	Statewide	Anchorage
19	16	Icicle Seafoods Inc.	583	508	Seafood Processing	Statewide	Petersburg
20	19	Fred Meyer, Inc.	531	517	Retail-general merchandise	Statewide	Anchorage
21	21	Sears Roebuck and Co.	524	447	Retail-general merchandise	Statewide	Anchorage
22	18	Union Oil Co. of California	515	469	Oil & Gas	Statewide	Anchorage
23	*	International Seafoods of Alaska, Inc.	488	438	Seafood Processing	Statewide	Kodiak
24	25	Nordstrom Inc.	463	445	Retail-general merchandise	Statewide	Anchorage
25	33	Pay N Save ⁴	462	496	Retail-general merchandise	Statewide	Anchorage
26	26	Anchorage Daily News	451	396	Newspaper	Anchorage	Anchorage
27	20	Spenard Builders Supply	432	325	Retail-building supplies	Statewide	Anchorage
28	23	Hotel Captain Cook	426	378	Hotel	Anchorage	Anchorage
29	24	J. C. Penney Co.	421	405	Retail-general merchandise	Statewide	Anchorage
30	29	Felec Services Inc.	412	388	Radar Station Operator	Statewide	Fairbanks
31	30	Alaska Commercial Co.	408	349	Retail-general merchandise	Statewide	Anchorage
32	*	Brown & Root USA, Inc.	391	226	Heavy Construction	Statewide	Anchorage/Northern
33	40	Lamonts Inc.	390	345	Retail-apparel	Statewide	Anchorage
34	31	Wilsyk Alaska Inc.	390	405	Personnel Supply Services	Statewide	Anchorage
35	48	Burger King ⁵	385	388	Retail-eating establishments	Statewide	Anchorage
36	*	Westward Hilton Corp.	384	319	Hotel	Anchorage	Anchorage
37	32	Sheffield Enterprises Inc. ⁶	378	403	Hotel	Anchorage	Anchorage
38	28	Anchorage Times Publishing Co. Inc.	373	362	Newspaper	Anchorage	Anchorage
39	37	Chugach Electric Association Inc.	372	302	Electric Utility	Statewide	Anchorage
40	46	Alaska Pulp Corp.	358	401	Pulp & Lumber Products	Sitka	Sitka

employment. Compared to the 1985 Trends 50 list there were changes in the industry characteristics. There were increases in the proportion of manufacturing and services representation and declines in the rest of the industries. Finance-insurance and real estate and construction lost the largest share of Trends 50 employment.

Not only do these 50 firms represent a considerable portion of jobs in Alaska, they represent a significant share of employment in their specific industries. The prime example is the mining industry. The four oil and gas firms represented over 61% of total oil and gas employment out of a total of over 120 firms. The two lar-

gest oil and gas firms, ARCO and Standard Alaska, accounted for nearly half of oil and gas employment in 1986. On the other side of the scale, the construction industry is predominantly composed of small firms. Less than three percent of total construction employment is within the largest 50 employers.

Retail trade firms in the Trends 50 represented 18% of total trade employment. Some members however, make up a greater share of their specific retail business. For example, the largest two firms in the trade industry are also Alaska's largest grocers. Carr's and Safeway represent 47.3% of total employment in Alaska's food store industry. Four

department store merchants (Fred Meyer, Sears, JC Penney and Nordstroms) had employment levels in 1986 that accounted for nearly 85% of statewide employment levels within the general merchandise portion of retail trade.

The largest services firms (Providence Hospital, Lutheran Hospital and Homes Society, and Humana Hospital) accounted for over 3,330 jobs in 1986. This was over three quarters of the private hospital, nursing and personal care facilities employment in Alaska.

Three of the seven firms in the transportation, communication, and utilities industry group are air carriers or

Table 1 (continued)
Alaska Economic Trends
Top 50 Employers
(based on 1986 average employment)

1986 Rank	1985 Rank	Firm	Employment 1986	Employment 1987/a	Industry	Area	Headquarters or Largest Site
41	36	The Office Place	355	308	Office Equipment/Supplies	Statewide	Anchorage
42	41	Tanana Chiefs Conference Inc.	354	335	Non-profit service	Statewide	Fairbanks
43	45	ERA Helicopters Inc.	331	284	Air Carrier	Statewide	Anchorage
44	*	Servair Inc.	329	328	Air Transportation Service	Statewide	Anchorage
45	42	International In-Flight Catering Co. Ltd	327	240	Retail-food catering	Anchorage	Anchorage
46	*	Our Lady of Compassion Care Center	325	317	Health Care	Statewide	Anchorage
47	38	Alaska National Bank of the North ⁷	321	0	Banking	Statewide	Anchorage
48	*	Trident Seafoods Corporation	319	661	Seafood Processing	Statewide	Dutch Harbor
49	44	Sheraton Anchorage Hotel	313	286	Hotel	Statewide	Anchorage
50	49	The Salvation Army-Alaska Division	311	298	Non-profit services	Statewide	Anchorage

Dropped Out of Trends 50

1985 Rank	Firm	1985 Employment
27	Pioneer Construction Co.	437
35	AIC-Martin JV, Inc.	385
39	H C Price Construction Co.	365
43	Alaska Sales and Service, Inc	338
47	Reeve Aleutian Airways	313
50	First Interstate Bank	308

a/ 1987 data based on first 6 months only.

* New Top 50 members in 1986

¹ Includes all Carr-Gottstein companies. Carrs Quality Centers alone accounts for 83%.

² Includes Fairbanks Memorial Hospital and facilities in Kodiak, Soldotna, and Valdez.

³ This is Alaska's largest McDonald franchise. It includes Anchorage, Palmer and Wasilla outlets. This franchise sold in late 1986 and in 1987 to several franchise owners.

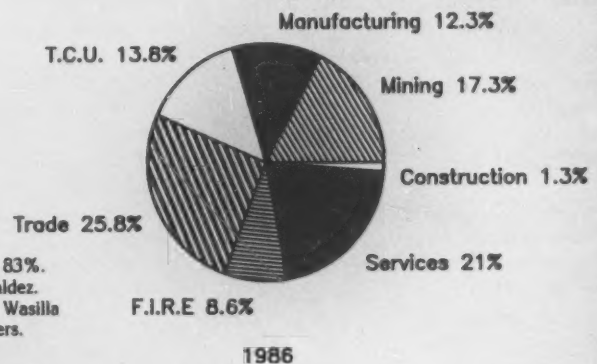
⁴ Seattle Standard Corp. is the parent corporation during this period.

⁵ This franchise includes Anchorage, Fairbanks, Wasilla Burger Kings.

⁶ Was sold to Holland America/Westours in 1987, operated under the name Westmark Hotels.

⁷ Went bankrupt in 1987. Deposits and selected assets were taken over by National Bank of Alaska.

Figure 2
The Trends 50
Employment by Industry



they service the airline industry. They accounted for 31% of all air transportation employment in Alaska. Alyeska Pipeline Company is in a league by itself, providing 90% of the jobs in the oil pipeline industry. Alascom is the big player in the telephone communications, representing nearly half of that industry's total employment (this does not include local government owned and operated systems).

The three banks and credit unions among the 1986 Trends 50 list represented over 60% of banking/credit union employment statewide.

Location of the Trends 50

The Trends 50 are found throughout Alaska, from Ketchikan to the North Slope, and from Cordova to Adak. In 1986 they had employees in at least 57 communities across Alaska. Alaska's largest employers are found in the greatest number in Anchorage followed by Fairbanks and Juneau. Geographically speaking, financial institutions are the most widely distributed firms. On average, they had employees in 13 communities and in as many as 22 communities.

The trade, air transportation, telephone communication and services industries were represented in more communities than other industries.

Among those in the trade industry, Sears and Spenard Builders Supply had operations in more communities than any other retail establishment. Carrs and Safeway have locations in the six largest communities in south-central Alaska. These two grocers and Spenard Builders Supply also have several locations in Anchorage.

Because of the scope of their services, Alascom, MarkAir and Alaska Airlines are located across the state, each having employees in at least 15 communities. The Salvation Army was found in many of the same communities. According to our records The Salvation Army had employees in 13 Alaska communities in 1986. The only hotel operator in Alaska

among the Trends 50 with locations beyond Anchorage was Sheffield Enterprises—now owned by Holland America/Westours and operated under the name Westmark Hotels.

Unique among the Trends 50 are the oil and construction companies location of operations. The oil companies operate on the North Slope and in Cook Inlet, but have their headquarters in Anchorage. The construction firm, Brown & Root U.S.A., is much the same as the oil firms. Headquartered in Anchorage, its main operations are on the North Slope, related to oil field construction.

The majority of manufacturing firms among the Trends 50 are in the fish processing and lumber and paper manufacturing sectors. These firms are the most likely not to be located in Anchorage. On the other hand, Alaska's two largest newspapers are Anchorage based, but distributed statewide.

Conclusion

Alaska's 50 largest employers contribute a large share of total jobs in Alaska. In 1986 they accounted for over 31,200 jobs, 21% of total private employment in Alaska. They represent a variety of industries and have operations across the state. These firms have been major contributors to the economy and will continue to play a leadership role in Alaska's future.

Trends 50 Data Table

Provided in Table 1 are the Trends 50 ranked by employment. Also provided are the firms headquarters location and industry information. Ranking is based on 1986 annual average employment data, which are provided in column 4 of Table 1. The next column contains employment data for the first six months of 1987 (the most current data available at survey time). Although the 1987 data are not directly comparable with the 1986 annual average data because of seasonal and other cyclical fluctuations they provide some insights into the employment trends of these firms.

Overall, the companies in the Trends 50 will remain relatively stable from 1986 to 1987. The rankings will shift around, but only Alaska National Bank of the North will drop out for certain. Another one or two appear on the verge of dropping out based on their data for the first half of 1987. In addition, their relative economic durability is illustrated by the fact that total employment among these employers fell about half as much as the decline in total private employment from 1986 to 1987.

Column 6 is the firms primary business activity. This would not include all business activities which a firm may be involved in. Column 7 and 8 contain location information. If the firm operates in more than one com-

munity, then it is designated a statewide firm. If it operates in only one location that place is listed. The second location provided gives the company's Alaska headquarters or the location of its largest operation.

¹ The employment data are based on records of unemployment insurance tax, which every employer in the state with one or more employees must pay. The employment data are based on U.I. account numbers, so the employment figures may not include the total employment of a parent company if the subsidiaries are under another account number. The employment information is protected by confidentiality laws and therefore it was necessary to receive written permission from each company to release their employment information.

The number of employees is a job count. It represents the total number of people who worked during the pay period including the 12th of each month. This is not an unduplicated count of the number of different individuals because some workers are reported by more than one employer due to dual job holding and labor turnover. No distinction is made between full-time and part-time employment.

The Center of Alaska's Bottomfish Grounds: Kodiak and the Aleutian Islands

By Neal Fried

Not until recent news articles reported on the boom town of Unalaska/Dutch Harbor were many Alaskans aware of the flourishing bottomfish industry taking the Kodiak-Aleutian Island region by storm. The remoteness of the Aleutian chain and the Bering Sea are partially responsible for this lack of awareness. Additionally, not many Alaskans are familiar with activity in the Aleutians, as so much of their commerce is with Seattle and other areas outside of the state.

While the news of layoffs, foreclosures, record vacancies, and bankruptcies dominate the state's economic news, Kodiak Island and the Aleutian chain are prospering. As a consequence, labor shortages are a problem and housing is in short supply. Things weren't always this way. Prior to 1985, while most of the rest of state basked in a petroleum revenue economic boom, many com-

munities in the Kodiak-Aleutian region were suffering from economic decline. The crash of the lucrative king crab fishery hit many of the communities in this region hard. Dutch Harbor plummeted from the number one port in value of production in the nation to number 22. Kodiak's fate was not much different. The present prosperity of the region is perhaps making up for lost time.

The Emergence of the Groundfish Boom

No one single event initiated prosperity but the development of Alaska's "bottomfish" resource is one primary cause. In addition large opilio crab (snow crab) harvests have augmented fishermen's income. Increased military activity on the Aleutians provides additional stimulus to the region's economy. Other favorable influences include better than average salmon and halibut catches and prices, favorable exchange rates, and signs of a comeback in the Bering Sea/Aleutian king crab fishery.

The Aleutian chain and Kodiak sit in the middle of one of the richest bottomfish waters in the world. Last year the ports of Kodiak and Unalaska ranked second and fourth in the nation for value of fish production. Unalaska's 1987 value of production of \$62.7 million represented almost a doubling in the value of the fishery over the previous year. In 1987 the ex-vessel value¹ of the state's groundfish fishery was \$388 million.

For all of Kodiak's communities, and more than three quarters of the communities on the Aleutians, fishing reigns king. According to Stephen Braund and Associates, roughly 70% of King Cove's income comes from fishing. Many of the other economies in the region are not much different.

Some communities are doing well without an increase in fishing activity. Shemya and Adak are military installations. Cold Bay is a former military base and is now a government and transportation center. The Navy budget in Adak has more than doubled since 1980. Uniformed military personnel on the Aleutian Islands increased from 2,200 in 1983 to 2,984 in 1987. This has been another major source of economic stimulus to the Aleutians, though the benefits from this activity have remained localized.

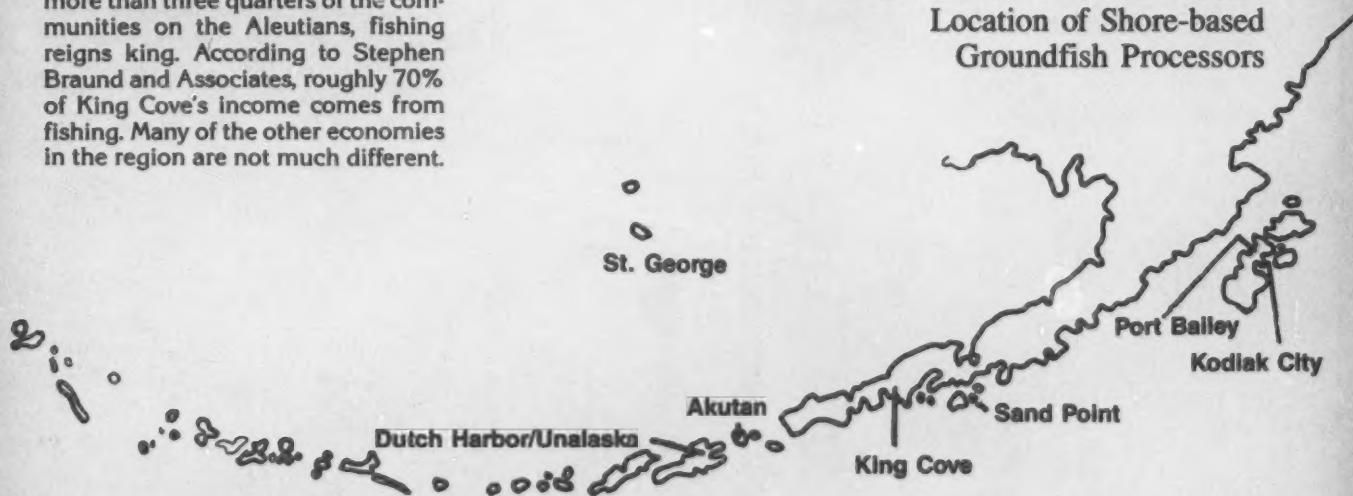
Other towns such as Atka and Nikolski with populations of less than 100 have yet to benefit from the commercial fishery primarily because they are more subsistence oriented. The Pribilof Island communities of St. George and St. Paul used to rely on the seal harvest as the basis of their economy. Presently, they are building infrastructures to take advantage of the local fishery resources.

What are Bottomfish?

Bottom or groundfish (the terms can be used interchangeably) loosely refers to pollock, cod, sablefish, perch, rockfish, flounder, and other species (Figure 2). The Japanese and others have fished these resources heavily since the 1950s, exploiting a giant resource which created little interest in Alaska. More than 92% of

More than 92% of the bottomfish harvest comes from the Bering Sea/Aleutian Islands area.

**Figure 1
Kodiak and the Aleutian Islands
Location of Shore-based
Groundfish Processors**



the bottomfish harvest comes from the Bering Sea/Aleutian Islands area. If we add the waters surrounding Kodiak Island the figures would climb to nearly 100%.

The "Americanization" of the Fishery

In 1976 Congress passed the Magnuson Act. One intent of the act was to Americanize the fishery within the 200 mile limit by allocating an increasing share of the bottomfish resource to domestic fishermen at the expense of foreign harvesters. For a number of years the act had little im-

pact on Alaska or on the domestic industry. Through the early 1980s, American fishermen continued to fish only for the higher value species (salmon, herring, halibut, and shellfish) and ignored bottomfish.

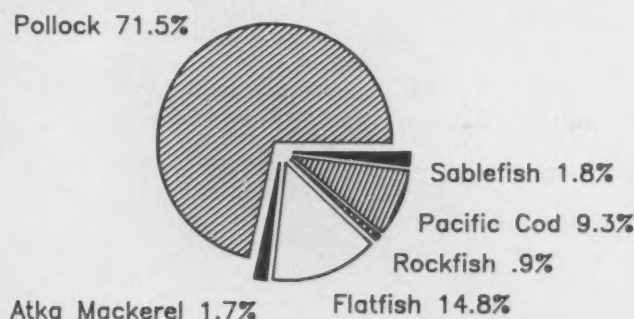
In 1982 almost 1.3 million metric tons of bottomfish were caught in Alaskan waters and processed by foreign vessels. The foreign catch represented 86% of the area's harvest. Though some of these foreign operations made occasional calls at Unalaska and other ports in the region, most were self-contained operations. Little or no economic benefits accrued to the communities of Kodiak or the Aleutian Chain.

As the worldwide and domestic demand for all fish grew rapidly, prices began to rise and the resource became more attractive to domestic fishermen. Then in 1981 the king crab fishery crashed. Many fishermen had made large investments in crab boats and needed to find an alternative way to make payments on their vessels. They began to turn to joint venture bottomfish operations as a way to keep their boats operating. This is an example of where adverse circumstances led to the development of a new industry.

Joint ventures meant American fishermen harvested the fish and foreign factory ships bought their fish and processed them at sea. This provided a market for domestic fishermen with prices high enough to make these ventures profitable. In 1981 joint ventures harvested 94,689 metric tons in Alaska. By 1985 it increased nine fold, to 884,000 metric tons (A metric ton is equivalent to 2,205 pounds). Last year joint ventures in the region harvested 1.4 million metric tons.

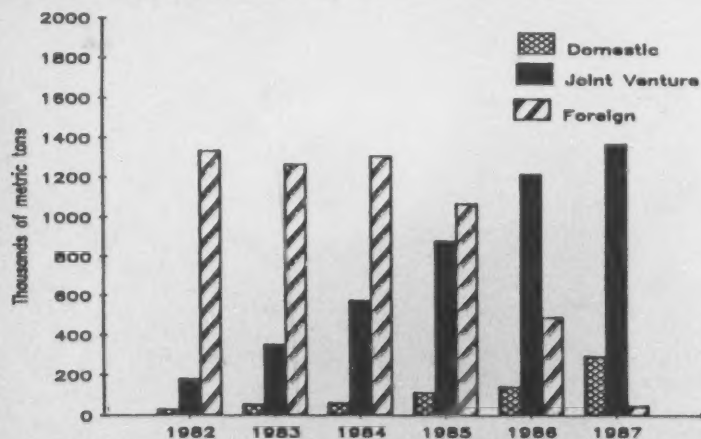
The volume of domestically caught and processed fish began to grow albeit more slowly. In 1982, domestic operations caught and processed 33,000 metric tons of groundfish, and by 1987 it climbed to 296,000 metric tons. The growth in joint ventures and domestically caught and processed fish came at the expense of the foreign catch (Figure 3). By 1987 the foreign catch fell to 3% of the state's entire catch, in comparison to more than 86% of the catch in 1982. In 1988 there is no foreign quo-

Figure 2
Alaska Groundfish Harvest by Species, 1987



Source: National Marine Fisheries Service

Figure 3
Alaska Groundfish Harvest 1982-1987



Source: National Marine Fisheries Service

ta for fish as domestic and joint ventures will harvest the entire catch.

Development of the joint ventures and domestic bottomfishery has allowed a number of communities in the region to reap economic benefits which had been previously elusive. Domestic fishing boats bought more supplies from the local communities. Residents began harvesting the fish, boosting local income. In 1981, 130 Alaskans were issued fishing permits for groundfish and by 1987 the number had grown to 1,230 (Figure 4).

Though most residents still benefit more from traditional fisheries, the bottomfish industry is providing an economic boost to many of the region's residents. Unemployment rates have fallen to remarkably low levels since the high rates during the king crab bust. In 1982, Kodiak's unemployment was 11.4% and by 1987 it had fallen to the second lowest in the state, 6.1%. The Aleutians unemployment rate for the same period declined from 7.3% to 3.6%, the lowest in the state.

Recent investment in the region indicates an expanding economy. The most dramatic example occurred in Unalaska. According to Alaska Construction and Oil Magazine, hundreds of millions of dollars are being sunk into harbors, warehouses, processing plants, shipyards, hotels and housing in Unalaska. Almost all of it is private capital. The biggest projects include the Captains Bay \$7-10 million marine industrial park and ship repair facility, a \$7.5 million project by Offshore Systems Inc. (similar to Captains Bay), and \$20 million for new surimi production facilities by Alyeska Seafoods. Great Land Seafoods also made substantial investments in their surimi plant.

Smaller communities such as Sand Point and King Cove have experienced major upgrades in their facilities. Sand Point is presently spending \$2.4 million in harbor expansion. In King Cove, Peter Pan Seafoods has nearly completed a \$7 million upgrade to their plant.

Much of Kodiak's public infrastructure expansion to support the fishing industry took place in the early to mid 1980s. Recently, a number of processors have expanded. All

Alaskan Seafoods expanded their plant last year and Western Alaskan is enlarging their facility in anticipation of surimi production. Other processors have increased the utilization of their space and have added processing equipment for bottomfish. In many cases this has meant converting their king crab and shrimp lines into bottomfish operations.

Possibly the single most ambitious project is being undertaken on St. George, one of the Pribilof Islands. Presently, there is only a small processing and cold storage facility on St. George, despite its central location in the Bering Sea. A \$20 million breakwater/dock is presently being completed. St. George hopes to become a major support base for the domestic fishing fleet and serve as a processing center for crab, halibut and bottomfish. St. Paul, the other Pribilof island, is undertaking a similar project.

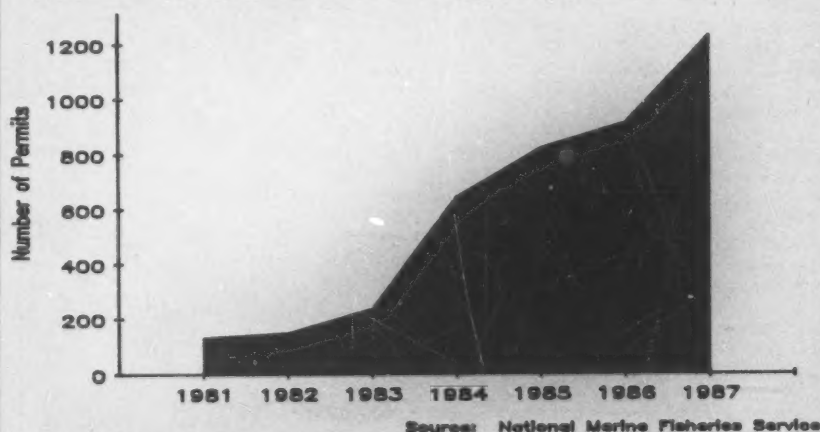
Processing Bottomfish

An additional economic benefit to the region's communities is shore-based processing of groundfish. Alaska shore-based processing of groundfish is relatively recent, taking hold in 1985, though a number of false starts and smaller operations occurred earlier.

Local production of surimi provided an initial boost to the region's shore-based processing. Surimi, a sub-

The groundfish fishery has made the fishing industry far less seasonal.

Figure 4
Number of Commercial Fishing Permits
Issued in Alaska to Alaska Residents, 1981-1987



stance described as an "odorless, tasteless and gelatinous substance," is a fish paste made from minced pollock. Imitation seafood, such as scallops, crab and shrimp are made from surimi. The region produces all of the surimi in the state. The first production of surimi in Alaska was in a demonstration plant in Kodiak in 1984. In 1985 Alaska Pacific Seafoods of Kodiak produced the first commercial surimi in the state. By 1987, three shore-based plants were

producing surimi. One is in the city of Kodiak and two in Unalaska-Dutch Harbor. Another surimi line is being added this year in Kodiak.

Processing groundfish into fillets and fish blocks (for fish sticks) also caught on quickly. By 1987, 17 of the region's 25 shore based plants were processing bottomfish. Five years earlier there was not one substantial operation.

The manufacturing figures in table 1 and 2 illustrate the growth in bottomfish processing. On the Aleutian chain employment fell dramatically in 1982 and continued its descent through 1984. Kodiak fish processing employment fell even more dramatically. The declines came as a result of the king crab fishery which almost closed down completely for a few years. Beginning in 1985 bottomfish activity helped to replace these losses. Total employment in both areas increased as a result of the emerging fishery. Though we can't always isolate bottomfish processing numbers from those of other species, it's possible to estimate jobs in certain months. For example during the first quarter of 1987, there were 1,385 fish processing jobs in Kodiak, most of them processing bottomfish. In May, employment reached nearly 2,000. Kodiak has become the bottomfish shore-based processing center in the state (Figure 5). Unalaska, on the other hand, is more of a service and supply center to the Bering Sea/Aleutian fishing fleet.

In addition to boosting employment numbers, the groundfish fishery has made the fishing industry far less seasonal. The pursuit of groundfish is a year-round activity, unlike the salmon season that lasts 2-3 months, or fisheries for halibut or herring which last 1-3 days. It has meant many plants are remaining open almost the entire year, although this could change as the fleet harvesting groundfish continues to grow. This is already happening for some of the fisheries. Management of the fishery will determine the future length of the seasons.

Recent data indicates nonresidents fill 73% of the Aleutians' and 53% of Kodiak's fish processing jobs. These numbers are probably conservative, because these figures fail to capture most of the floating processor's em-

Figure 5
Kodiak/Aleutian Islands Fish Processing
Employment 1980-1987

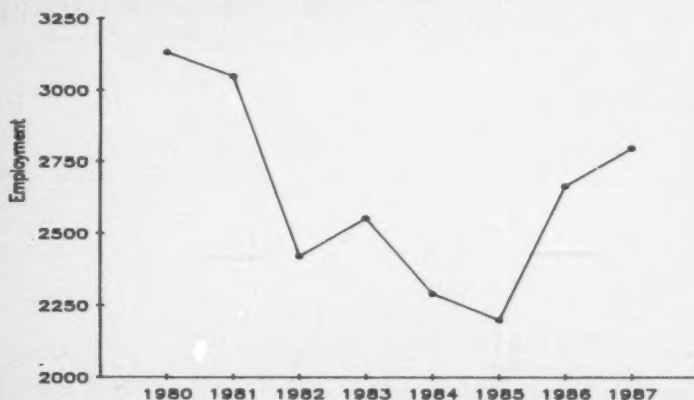


Table 1
Kodiak Employment by Industry
1980 - 1987

	1980	1981	1982	1983	1984	1985	1986	1987
Nonag. Wage & Salary	4,464	4,381	4,399	4,880	4,866	4,688	4,981	4,734
Mining	*	*	*	*	*	*	*	*
Construction	101	136	304	582	342	280	276	198
Manufacturing	1,880	1,547	1,275	1,378	1,473	1,380	1,733	1,569
Food & Kindred Prod. ¹	1,544	1,424	1,167	1,285	1,423	1,326	1,708	1,534
All Other Mfg.	336	123	108	93	50	54	25	35
Trans. Comm. & Utilities	352	320	297	311	298	231	188	222
Trade	611	595	708	723	749	813	757	834
Wholesale	35	17	27	37	35	49	52	50
Retail	576	578	681	686	715	764	706	784
Finance-Ins. & R.E.	98	95	101	104	103	105	110	108
Services	562	545	570	611	605	641	663	717
Government	1,038	1,051	1,044	1,114	1,165	1,174	1,209	1,081
Federal	286	257	252	253	241	243	243	234
State	207	253	260	273	282	282	266	237
Local	545	541	532	588	643	650	700	610
Miscellaneous	*	*	*	*	*	*	*	*

* Nondisclosable

¹ In Kodiak's case, these figures represent fish processing employment.

Source: Alaska Department of Labor, Research and Analysis.

ployment. However, if bottomfish can help provide a continuing source of year-round shore-based processing employment more local residents might choose to work in this industry. In addition, seasonal workers who currently leave the area might choose to make a longer commitment to these communities if year-round employment were available.

How Much Does The Region Benefit?

The number of floating processors in the domestic fleet has grown dramatically. According to the Alaska Department of Environmental Conservation's records there were about three times as many floating processors permitted in 1987 than in 1980. In 1985 floating processors landed 82 million pounds of groundfish compared to 142 million pounds in 1987. For example, the largest catcher/processor operator in the country, Seattle-based Arctic Alaska Seafoods operated two vessels in 1982. They hope to be operating 19 by the end of the year. In 1986 Arctic Alaska accounted for 34% the U.S. processed North Pacific bottomfish.

There is a concern regarding the growing number of floating processors in the region's communities and throughout the state. Since most of the floating processors are based in Washington state, this type of activity usually provides little economic benefit to the communities which sit in the middle of these fishing grounds. Crews often come from outside. The floating processors don't pay local property taxes or in most cases the raw fish tax. They buy few supplies or perform major repairs in the local communities. Some operators are beginning to home port in Alaska and hire local workers. More of the region's communities are building repair facilities that are capable of handling the larger vessels. But the economic leakages remain considerable.

The leakages are not limited to the processing part of the industry because the harvest end may provide a larger drain. Though Americanization of the fish harvesting has occurred rapidly during the past five years, it has not necessarily meant "Alaskanization." According to *Alaska Business Monthly*, only 10 of the 150 catcher

Table 2
Aleutian Islands Employment by Industry
1980 - 1987

	1980	1981	1982	1983	1984	1985	1986	1987
Nonag. Wage & Salary	2,589	3,435	3,157	3,388	3,139	3,172	3,418	3,564
Mining	•	•	•	•	•	•	•	•
Construction	112	118	81	131	108	192	210	214
Manufacturing ¹	1,586	1,625	1,255	1,269	870	874	959	1,173
Trans. Comm. & Util.	127	183	209	191	186	237	247	312
Wholesale Trade	•	•	•	•	•	•	•	•
Retail Trade	104	113	115	109	105	117	199	214
Finance-Ins & R.E.	76	97	92	97	144	129	133	119
Services	146	146	162	307	367	299	264	188
Government	1,081	1,131	1,230	1,267	1,324	1,337	1,385	1,315
Federal	676	686	723	729	720	694	742	682
State	68	66	76	72	74	80	74	70
Local	337	379	431	467	530	563	569	563
Miscellaneous	•	•	•	•	•	•	•	•

• Nondisclosable

¹ Fish processing employment represents more than 95% of the Aleutian Island manufacturing employment

Source: Alaska Department of Labor, Research and Analysis.

Table 3
Aleutian Islands Population
1980 & 1985

	1980	1985	Percent Change
Total Aleutian Islands	7,768	9,061	16.6
Adak	3,315	4,665	40.7
Akutan	169	80	-52.7
Atka	93	93	0.0
Attu	29	31	6.9
Cold Bay	228	157	-31.1
False Pass	70	77	10.0
King Cove	460	547	18.9
Nelson Lagoon	59	44	-25.4
Nikolski	50	46	-8.0
Sand Point	625	671	7.4
Shemya	600	613	2.2
St. George	158	191	20.9
St. Paul	551	466	-15.4
Unalaska	1,322	1,331	0.7
Rest of Aleutian Islands	39	49	25.6

Source: Alaska Department of Labor, Research and Analysis.

vessels operating in the Bering Sea were Alaska owned or based. In 1985, the Washington fleet harvested 92% of Alaska's domestic and 82% of the joint venture catch. Natural Resource Consultants of Seattle estimate 79% of Washington state's groundfish harvest comes from Alaskan waters. Some people refer to Seattle as the "whitefish capital of the world,"

Table 4
Kodiak Island Population
1980 & 1985

	1980	1985	Percent Change
Total Kodiak Island	8,569	11,221	30.9
Akhiok	105	109	3.8
Karluk	96	114	18.8
Kodiak	4,756	6,173	29.8
Larsen Bay	168	217	29.2
Old Harbor	340	344	1.2
Ouzinkie	173	235	35.8
Port Lions	215	302	40.5
Rest Kodiak Island	2,716	3,727	37.2

Source: Alaska Department of Labor, Research and Analysis.

If the region reaps more of the benefits of this incredibly rich fishery, the growth occurring today could be magnified immensely in the future.

though most of the catch comes from Alaskan waters.

According to a University of Alaska study on the state's commercial fishery, the income multiplier in the region was 1.2, the lowest in the state. Nearly 37% of all fishermen in Southwest Alaska (excludes Kodiak) were nonresidents. The combined Kodiak-Aleutian Island wage and salary work force was 43% nonresident. Much of the economic activity taking place is not benefiting the region or the state.

Solutions

The Southwest Alaska Municipal Conference and the City of Unalaska have introduced a number of proposals for changing how the fishing industry conducts business. They would give the region the ability to capture a bigger share of the benefits the industry produces. One proposal is to Americanize the fuel and transportation segment of the fishing industry. It would require the foreign fishing fleet to ship their products on U.S. carriers and purchase fuel from U.S. distributors. They believe the intent of the Magnuson Act is broad enough to include such a provision.

Another proposal would have a more localized impact on all of the region's communities. They propose the individual communities in the region receive part of the bottomfish allocation-known as community development quotas. The communities would be free to harvest the resource themselves or sell the rights to the harvest. A similar system exists in

some New Zealand communities today.

Other solutions include: getting the state to provide additional funds for infrastructure development, such as sewer and water lines, airports and harbors; providing tax incentives to encourage more shore-based processing and cold storage facilities; and developing educational opportunities in Alaska emphasizing fisheries.

Conclusions

The groundfish resource is there, and more importantly a demand for it exists. This is in contrast to the situation for some of Alaska's other natural resources. Dutch Harbor, growing to the present size of Kodiak, and Kodiak growing considerably larger is not inconceivable. All communities in the region are likely to benefit from this fishery. Other parts of Alaska, including Anchorage, could be major benefactors. The potential is huge, even if no increase in catch were to occur. The Japanese once estimated that the Bering Sea produced 500,000 jobs in Japan. This is double the present size of Alaska's entire work force. Capturing more of the present activity in the form of harvesting and processing the fish could result in the growth described above.

In addition, value added and marketing activity provides additional potential. Shipping blocks of surimi to Seattle or Japan for processing it into crab legs or shrimp could become less common. Processing and packaging large blocks of Alaskan caught frozen fish into fish sticks locally is no impossible task. If the region reaps more of the benefits of this incredibly rich fishery, the growth occurring today could be magnified immensely in the future.

NOTES:

¹ *Ex-vessel value is the remuneration paid to the seafood harvester for the value of fish or seafood offloaded from the catch vessel.*

Alaska Wage Rates—Are They Declining?

By Dan Zobrist

There appears to be a widespread belief that wage rates in Alaska are dropping. That the many advantages of being an Alaskan may not include a top-of-the-line rate of pay. This conventional wisdom is pervasive and has made commonplace a discussion of such topics as "brain-drain," which refers to the flight out-of-state of skilled workers seeking the highest bidder. To help in the understanding of this question, and of other questions related to Alaska wage rates, this article presents evidence on current Alaska wage rates as measured by a variety of sources.

"Tough times never stay but tough people do." Alaska's boom years of 1980-85 brought a net migration to Alaska of an estimated 73,340 people. Seeking their gold in the urban centers of the state, new residents, along with the old, enjoyed rising incomes and wages as oil prices peaked and tens of thousands of jobs were added to the economy. The collapse of oil prices in 1986 was the prime cause of this trend's reversal. Average annual employment in 1986 dropped 9,346 from 1985, and, for the first time in the 1980s, there was a net out-migration from the state of an estimated 4,144 people. The following year, an additional estimated 19,335 people left the state.

Tough times caused Alaska to drop from number one in 1985 to number five among the fifty states in per capita personal income in 1987. Total earnings from wages and salary dropped \$451 million from 1985 to 1986, and the average monthly wage dropped by \$277, due mostly to the reduction of the number of hours worked each month. This last monetary statistic, the drop in wages, requires more careful analysis.

There is no scientific sample to allow a strict statistical measure of statewide wage rates for most occupations employed in the private sector. Instead, there are a variety of sources of information on Alaska wage rates, each with its relative strengths and weaknesses.

Alaska Job Service—Wage Rates for Job Orders

Job Service, also known as the Alaska State Employment Service, argues correctly that it is the largest employment agency in Alaska. The most important, though not the exclusive, role of Job Service is to match workers who are looking for work with employers who are looking for workers. Employers place a job order, at a given wage, with Job Service for an opening in an occupation which they wish to fill. Their annual report for state fiscal year 1987 reports that Job Service received over 46,000 job openings, primarily in seafood processing, service, construction, and clerical occupations.

One of the strengths of the Job Service wage data is that they are driven by employers who are responding to changes in the labor market or to the demand for their product. A weakness of data from this source is that they are only wage offers and subject to revision upward during negotiation

The average wage from job openings in Anchorage dropped by over four percent.

Table 1
Changes in Total Number of Job Openings and
Average Hourly Wage
Alaska Job Service

	Number of Openings			Percent Change
	7/86-6/87	7/85-6/86	Difference	
Statewide	46,215	49,896	-3,681	-7.4
Anchorage	12,996	17,394	-4,398	-25.3
Fairbanks	4,491	4,359	132	3.0
	Average Hourly Wage			Percent Change
	7/86-6/87	7/85-6/86	Difference	
Statewide	\$6.52	\$7.03	-\$0.51	-7.3
Anchorage	6.94	7.26	-0.32	-4.4
Fairbanks	7.20	7.09	0.11	1.6

Source: Employment Security Automated Reporting System (ESARS), 1986-87 Alaska Department of Labor, Research & Analysis

with the worker. Actual wages paid are more likely a compromise between wages asked by labor and those offered by management.

While constrained by certain laws, such as the local minimum wage and those governing wages paid on public construction, an employer can still respond to shifts in the supply curve of labor, or in the demand curve for the product, by offering a lower or higher wage than was offered in a previous market. Therefore, changes in the average wage offered by employers through Job Service, on average, may reveal movements or trends in statewide wage rates.

For example, in comparison with the prior year, the statewide average wage of job openings declined by over seven percent (Table 1). However, 57% of the occupations showed increased wages. One determinant of the overall average wage is the mix of occupations ordered by employers (e.g. the average hourly wage offer for welders was over \$14 while that for

file clerks was \$6). Any significant changes in the occupational mix from year to year will affect the overall average wage rate, and could affect conclusions based on the average rate.

Maintenance and production types of occupations tend to receive higher wage offers than the average of all occupations. Last year, openings from these occupations represented 49% of all openings (Table 2). This year the percentage declined to 47%, while the relatively low-paying agricultural jobs increased from four to seven and a half percent of the total openings. The average wage rate might decline just from influences of this type.

These caveats aside, wage data from Job Service remain an important tool in understanding some of the effects of Alaska's recession. For example, for Anchorage the effects of both a change in the occupational mix of job openings and the decline in wages for specific occupations become apparent. Maintenance and production occupations dropped from 49% to 44%

Table 2
Job Openings by Major Occupational Category
Alaska Job Service

	Statewide				Anchorage			
	7/86-6/87	Percent of all Openings	7/85-6/86	Percent of all Openings	7/86-6/87	Percent of all Openings	7/85-6/86	Percent of all Openings
Managers & Officers	303	0.7	336	0.7	64	0.5	85	0.5
Professional & Technical	1,466	3.2	1,570	3.1	490	3.8	503	2.9
Sales	3,027	6.5	2,949	5.9	948	7.3	1,048	6.0
Clerical & Admin. Support	4,775	10.3	5,675	11.4	1,822	14.0	2,304	13.2
Services	8,296	18.0	10,027	20.1	2,347	18.1	3,394	19.5
Agric. Forestry & Fishing	3,494	7.6	2,040	4.1	717	5.5	533	3.1
Maintenance & Production	21,707	47.0	24,477	49.1	5,750	44.2	8,545	49.1
Commission or Not Classified	3,147	6.8	2,822	5.7	858	6.6	982	5.6
TOTALS	46,215	100.0%	49,896	100.0%	12,996	100.0%	17,394	100.0%

Source: ESARS, 1986-1987. Alaska Department of Labor Research and Analysis

Table 3
Average Hourly Wage — OFFICE WORKERS 1977-87

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Secretaries	\$7.44	\$8.35	\$8.70	\$9.48	\$10.67	\$11.74	\$12.01	\$12.55	\$12.40	\$13.01	\$13.31
Computer Operator	7.04	7.38	8.26	9.50	9.35	10.07	10.57	11.38	11.63	11.79	12.14
Key Entry Operator	6.25	6.61	7.04	7.85	8.28	8.72	8.84	9.11	9.02	9.16	8.46
Switchboard Operator	5.40	5.53	5.96	6.27	6.34	6.66	7.12	7.80	7.73	8.03	8.17
File Clerk	4.59	4.92	5.15	5.05	5.11	6.72	6.65	6.96	6.28	7.03	7.75

Source: BLS Area Wage Surveys

of the total job openings (Table 2) and they were split 50/50 between occupations with increased or decreased wages (*Alaska Wage Rates 1987*). Clerical occupations increased by one percent in proportion, however, 78% of the clerical occupations, representing 91% of the openings in that occupational category, reported lower wage offers from the previous year. The average wage from job openings in Anchorage dropped by over four percent.

Do Job Service wage data indicate that wage rates have declined from the previous year? The answer may be yes for some occupations in some geographic areas—but wages have also risen. The individual looking for wages for a particular occupation should consult the complete listing of job openings and wage rates available in the publication, *Alaska Wage Rates, 1987*.

Wage Surveys

"Occupational wage survey programs are not designed to supply mechanical answers to questions of pay policy." This caution, found in the Bureau of Labor Statistics (BLS) *Handbook of Methods* is from an agency which maintains wage rate records extending continuously back to 1860. The BLS, of the U.S. Department of Labor, conducts "Area Wage Surveys" for over 100 areas of the U.S. Regardless of the above admonishment, these surveys, and others like them, have met a variety of demands for wage information going back to the War Industries Board in 1919, to the Services Contract Act of 1965, and the Federal Pay Comparability Act of 1970.

The strength of these BLS surveys is that they are conducted in a consistent manner, with common defini-

tions of occupations, across many areas, and over many years. These features allow comparability of wage rates between areas, and provide a historical series. Two features restrict the usefulness of this data: the limited number of occupations surveyed, and; the restriction of surveying only firms which employ 50 or more workers. By limiting the survey to relatively large firms, the published rates may not reflect the wages received by workers in medium and small establishments.

BLS wage surveys cover selected occupations of "office" and "plant" workers. The Alaska area survey includes 29 major occupational clarifications, within which are distinctions in grade, e.g. secretaries I, II, etc. Tables 3 and 4 illustrate a ten year trend of nominal mean wages for a sample of these occupations.

The ten year trends for "office" workers (Table 3) show a mostly steady

Figure 1
Inflation Adjusted Average Hourly Wage
Carpenters & Switchboard Operators 1977-1987

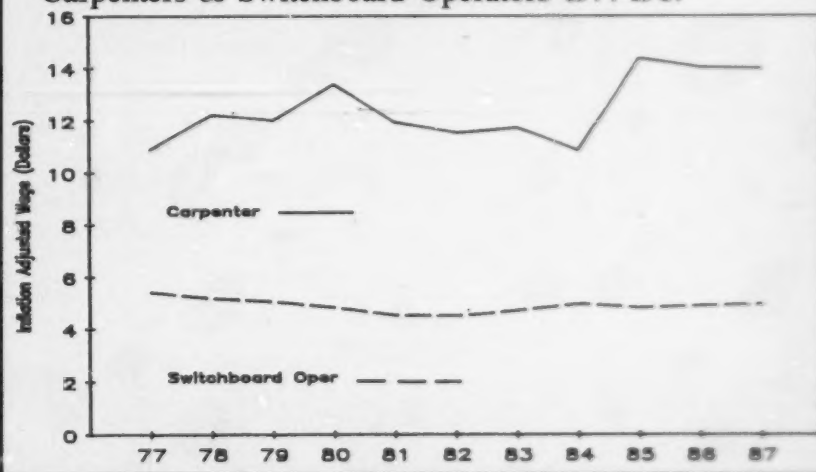


Table 4
Average Hourly Wage Rates- PLANT WORKERS- 1977-87

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Maintenance Carpenters	\$10.90	\$13.10	\$14.20	\$17.47	\$16.78	\$17.10	\$17.72	\$17.05	\$23.15	\$23.02	\$23.07
Maintenance Electricians	12.05	13.11	13.65	15.62	16.44	17.68	18.80	17.05	21.81	18.21	18.45
Maintenance Mechanics	11.60	12.74	10.37	9.68	13.31	18.83	19.53	20.41	20.23	21.84	21.74
Truckdrivers	10.22	10.45	11.80	12.31	12.08	12.22	13.33	14.97	15.81	16.21	14.95
Forklift Operator	9.00	9.76	10.11	11.48	11.93	12.63	13.28	11.29	13.11	12.93	13.58

Source: BLS Area Wage Surveys

Table 5
Comparison of Wage Differences for Selected Occupations
between Alaska and Seattle — 1987

	Alaska	Seattle	Percent Difference From Seattle
Maintenance Mechanic	\$21.74	\$14.42	50.8
Motor Vehicle Mechanic	17.64	15.13	16.6
General Maintenance Worker	11.42	9.93	15.0
Stationary Engineers	15.04	15.07	-0.2
Truckdrivers	16.27	13.36	21.8
Shippers & Receivers	11.32	11.95	-5.3
Warehouseman	16.40	9.59	71.0
Forklift Operator	13.58	12.11	12.1
Guard	9.45	5.02	88.2
Janitor & Cleaners	7.62	6.91	10.3

Source: BLS Area Wage Surveys, 1987

increase in wage rates through 1987. A different picture emerges when the increases are adjusted for the effects of inflation. Only three of the five occupations in Table 3 meet or exceed the rate of increase in prices from 1977 to 1987, as measured by the Anchorage Consumer Price Index (CPI). Secretaries, file clerks, and computer operators either meet or exceed the 65% rise in consumer prices. The reported wages for switchboard operators are 8% less in 1987 than they were ten years ago. Key-entry operators have especially lost ground in

their battle with the cost of living. Their reported wages in 1987 are 18% less than they were in 1977 (Figure 1).

The trends of wages for "plant" workers (Table 4) are more volatile than those of "office" workers. The wages of machinery maintenance mechanics rebounded from a post pipeline construction low of \$9.68 per hour to almost \$19.00 hourly two years later. Wages for carpenters rose and fell during the decade and then jumped from \$17 to over \$23 per hour in one year (1985). Both occupations enjoyed wage increases over the ten year span far in excess of the rise in the Anchorage CPI. Figure 1 illustrates the wage trends for maintenance carpenters after adjusting for inflation. The rest of the occupations reported wage declines over the decade ranging from seven to 11%.

How do wages in Alaska stack up against those from outside? BLS Area Wage Surveys are good sources for comparisons. Table 5 compares a sample of Alaska wages with those from the Seattle, Washington Metropolitan Area surveyed in 1987. Although most of the occupations show higher wages in Alaska, there are some wild swings of differences. Guards in Alaska enjoyed an 88% ad-

Table 6
Alaska Wage Rates 1987
(Nonunion)
Regional Comparisons

	Alaska Statewide	Anchorage MatSu Region	Interior Region	Southeast Region	Gulf Coast Region	Southwest Region	Northern Region
Merchandise Managers	\$16.01	\$16.83	\$19.24	\$14.53	\$13.54	\$13.76	\$10.59
Electronic Engineering Technicians	17.51	18.31	12.61	15.69	17.47		19.39
Accountants & Auditors	18.55	18.15	19.53	19.15	20.38	17.67	
Cashiers	6.53	6.89	6.78	7.97	5.42	6.89	6.03
Nurses: Registered	15.33	13.87	16.96	16.20	14.98		
Secretaries	11.87	11.73	11.23	12.60	11.61	11.98	13.07
Stock Clerks	10.95	10.50	9.95	8.73	10.46	6.27	15.96
Clerical Supervisors & Office Managers	15.73	17.22	15.16	14.04	13.75	13.59	15.30
Bookkeeping & Accounting Clerks	11.10	10.88	11.40	11.31	10.15	11.77	13.39
Bakers	9.43	8.75		10.53	7.23		12.39
Dental Assistants	11.39	12.05	11.06	11.84			
Bartenders	8.56	7.64	8.12	8.54	8.84	7.90	10.59
Carpenters	17.90	14.59	12.52	16.68	17.03	19.98	19.54
Electricians	17.39	12.75		17.92	20.11		17.94
Automotive Mechanics	15.92	15.42	16.61	13.36	16.33	15.58	24.41
Laborers	11.01	10.67	8.72	8.57	13.20	8.89	15.03
Maintenance Repairers	13.18	13.19	11.11	14.04	13.34	9.05	15.05
Truckers-Light	9.53	9.61	8.66	9.05	13.31	9.04	

Source: Alaska Wage Rates 1987, Alaska Department of Labor, Research and Analysis

vantage in wages over guards in Seattle, while shippers and receivers were at a five percent disadvantage to their Seattle counterparts. The differing rates at which wages differ between these two areas may indicate other influences at work besides geography. Two factors which can influence the average wage are the degree of union participation and size of firms. Influences of these other variables could be explored with the use of econometric techniques.

Alaska Wage Rates is an annual survey, first done in 1975, conducted by the Research and Analysis Section in the Alaska Department of Labor. The strengths of the survey are the relatively large number of occupations, with consistent definitions, and the large sample of employment surveyed: almost 150 occupations and nearly 24,000 workers. Many of the occupations covered are professional and technical ones for which information on wages is not available from any other source. The survey includes data on wages for union, nonunion, and state government workers (for comparable occupations). The information from this survey is published each year and is also available to counselors and job seekers through the Alaska Career Information System (AKCIS).

For the 1987 wage survey, the department changed its estimating metho-

Table 7
Professional & Technical Workers Wage
Anchorage & Interior - 1987

	Anchorage	Interior
Civil Engineers	\$24.46	\$22.81
Computer Programmers	18.80	17.94
Drafters	15.56	14.51
Mechanical Engineers	27.13	17.20
Nurses: Licensed Practical	11.60	11.33
Social Workers	13.24	14.31
Surveyors & Mapping Scientist	17.60	19.12
System Analyst: E.O.P.	23.70	19.17
Nurses: Registered	13.87	16.96
Purchasing Agents	20.09	15.19
Electrical Technician	18.31	12.61
Electrical Engineer	26.89	23.29

Source: Alaska Wage Rates 1987, Department of Labor, Research and Analysis

dology from prior years to better estimate the average (mean) wage. This means that comparisons of the survey with those of earlier years is not possible. But one of the strengths of the wage survey is its regional information. While no strict comparisons across regions can be made without a scientific sample, it is still useful for many purposes to review the wages reported for each of six regions.

Occupations which were reported from most of the regions are listed in Table 6. As would be expected, the Northern region reports consistently higher wages across occupations.

Table 8
Occupational Wage Rates by Source of Data
Alaska 1987

	"Prevailing Wages"	BLS-Area Wage Survey	Job Service	Alaska Wage Rates 1987
Carpenter	\$23.95	\$23.07	\$12.79	\$17.90
Roofer	24.60		15.65	20.39
Electrician	25.77	18.45	16.49	17.39
Painter	24.50	19.82	9.12	15.61
Truckdriver	15.76	14.95	8.63	9.53
Maintenance Machinery Mechanic	23.17	21.74		19.30
Receptionist		6.84	6.48	8.44
Computer Programmer		16.41	13.82	18.46
Surveyors	22.43		19.13	18.55
Drafter		18.73	13.59	15.24
Guard/Watchman	20.34	9.45	6.33	6.80
Accounting Clerk		10.35	8.04	11.10
Secretary		13.31	8.86	11.87
Switchboard Operator		8.17	7.10	8.53
Payroll Clerk		11.13	8.14	11.13

Source: Alaska Wage Rates 1987, BLS Area Wage Survey, Alaska, July 1987, "Prevailing Wages," 1987, Labor Standards and Safety, Alaska Department of Labor

Also, rural areas in general tend to have higher wages than the major metropolitan area of Anchorage and the Interior region, which is mostly comprised of Fairbanks.

Wages reported for professional and technical workers in Anchorage and the Interior are compared in Table 7. With the exception of registered nurses, surveyors, and social workers, all of the occupations which were reported in both areas showed higher wages in Anchorage. This trend could be the result of a higher demand for advanced experience and skill levels needed for the more complex operations in corporate headquarters, which are often located in Alaska's largest city.

A contractor, or subcontractor, that does work on public construction in Alaska, as defined by AS 36.95.010(3), must pay specified wage rates. These rates are established by the Alaska Department of Labor as "prevailing" wages for work of a similar nature in the region in which the work is done. Currently, a wage determination is made for two geographic regions of the state: north of 63 degrees north latitude and south of 63 degrees north latitude.

The methodology used by the department to determine the wages is an eclectic sample of construction contractors surveyed for occupational wages. Alaska Administrative Code 30.050(b) stipulates that "In determining the prevailing wage rate... the department will consider the prevailing wage that represents the majority penetration for each work classification." This is interpreted to mean that if there is one wage, accurate to the penny, such as a union scale, for 51% of those surveyed in an occupation, then that wage is determined to be the prevailing wage. In the absence of this condition, the prevailing wage is calculated using an adjusted arithmetic mean of each occupation's wages collected in the sample.

The occupations affected by these "prevailing" wages are termed Laborers, Mechanics, and Field Surveyors. They include specializations of common crafts such as, Truck Driver: Turn-O-Wagon (not self-loading) or Painter: Steeplejack and Tower. Table 8 provides a few compar-

isons between prevailing wage and the other methodologies.

Summary

Each of the sources of wage information described above provides a different snapshot of the current Alaska wage scene. Job Service wage data shows that employers' wage offers for some occupations have climbed over the past year, but many others have fallen, especially wage offers for clerical jobs in Anchorage. BLS wage surveys show that wages for some occupations are volatile, and others are paid less than their counterparts in the Seattle, Washington area. Alaska Wage Rates 1987, the annual survey by Research and Analysis, reports that wages for professional and technical workers tend to be higher in Anchorage than in the Interior. "Prevailing wages" are required to be paid to those workers who work on public construction projects which are covered by statute.

Have wage rates in Alaska dropped? This discussion has pointed to areas where they have—and haven't. The Alaska labor market has been dynamic since at least the pipeline construction days. Many labor services are traded in an open market which is influenced by the forces of supply and demand, just like any other commodity. These labor services are often distinct, without close substitutes, and therefore traded in narrowly-defined markets. Each market may not respond identically to a decline in the price of oil, so wages may rise and fall independently, although Alaska history in this decade generally has seen a steady rise in the nominal wage of most occupations. Without large-scale, costly surveys there is no certain measure of the average occupational wage rate, and the definitive answer to the question about changes in wage rates remains elusive.

For More Information:

Information on wage rates for job orders with Alaska Job Service are published in *Alaska Wage Rates, 1987*. To receive a copy of this publication contact:

Research and Analysis Section
Alaska Department of Labor
P.O. Box 25501
Juneau, Alaska 99802-5501.

Area Wage Surveys are available in whole or in part from:

Bureau of Labor Statistics
Publications Sales Center
P.O. Box 2145
Chicago, IL 60690

A list of the prevailing wage rates may be obtained from:

Labor Standards and Safety Division
P.O. Box 630
Juneau, Alaska 99811

Alaska's Employment Scene

By Greg Huff

Wage and salary employment figures for May showed that employment was down 1.8% compared to year-ago figures. This is the largest over-the-year decline since last November. In addition, the seasonal employment increase between April and May was anemic—increasing by only 4,400 jobs compared to 7,100 a year ago. For the past several months we reported in *Alaska Economic Trends* the moderating of employment losses. In our forecast we stated that employment levels, hence the general economy, would stabilize this year and grow the next. Analyzing May figures raises the question; does the surge in annual employment losses combined with a weak seasonal upturn mean the recession will linger longer than anticipated? Or are the May figures just an anomaly? This is the question this month's employment scene examines.

First, let's take a brief look at the employment trends of the past seven months (Figure 1). From November 1987 to March 1988 employment declines were retracting and were within grasp of showing growth. In fact, our March preliminary estimates, reported in the April issue of *Alaska Economic Trends*, showed year-to-year employment levels increasing by 200 jobs. The following month we revised March's figure to show a decline of 200 jobs. (Revised figures are used in Figure 1.) In April, employment figures show over-the-year employment declines of 1,200 and by May the losses had tripled.

These losses can be deceptive, however. On the one hand, the recent increase in job losses (April and May) masks the longer term moderation of employment declines. For example, a comparison of May 1986 and 1987 figures show employment declines of 11,600, a whopping 5.2% decline. These losses are nearly three times greater than the decline from May 1987 to May 1988. On the other hand, the rate of employment declines had been shrinking for over a year and suddenly it tripled in one month. These kind of employment losses can startle economic observers because they have, several times in the past, pointed to an underlying weakness in the economy.

Examination of industry data reveals the primary causes for increasing employment losses and the weak seasonal upturn. The key factor is seafood processing employment trends. Secondary factors include government and construction employment trends.

Prior to May, for example, seafood processing had been growing annually from 2,000 to 3,000 jobs. This represented from 17% to 60% growth, depending upon the month. By May, the rate of growth was in the single digit range (4.2%), which represented only 300 jobs. Why

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	208,700	204,300	212,600	4,400	-3,900
Mining	9,100	9,000	8,500	100	600
Construction	9,000	8,200	10,500	800	-1,500
Manufacturing	14,100	13,000	13,600	1,100	500
Seafood Processing	7,500	6,700	7,200	800	300
Lumber & Paper Prod.	3,400	3,200	3,100	200	300
All Other Manufacturing	3,200	3,100	3,300	100	-100
Transportation	17,500	16,900	17,800	600	-300
Trucking & Warehousing	2,400	2,400	2,400	0	0
Water Transportation	1,000	900	1,100	100	-100
Air Transportation	5,400	5,200	5,300	200	100
All Other Transportation	8,700	8,400	9,000	300	-300
Trade	41,100	39,400	41,300	1,700	-200
Wholesale	7,400	7,200	7,400	200	0
Retail	33,700	32,200	33,900	1,500	-200
Gen.Mer.& Apparel	4,700	4,600	4,700	100	0
Food Stores	6,000	5,700	5,900	300	100
Eating & Drinking Pl.	12,300	11,600	12,600	700	-300
All Other Retail	10,700	10,300	10,700	400	0
Finance-Ins. & R.E.	10,700	10,600	11,300	100	-600
Services	40,900	39,900	42,400	1,000	-1,500
Government	66,300	67,300	67,200	-1,000	-900
Federal	17,500	17,300	18,000	200	-500
State	18,600	19,800	18,400	-1,200	200
Local	30,200	30,200	30,800	0	-600

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

Table 2
Nonagricultural Wage and Salary Employment
By Place of Work

Anchorage

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	97,950	97,300	101,800	650	-3,850
Mining	3,450	3,900	3,200	-50	250
Construction	4,300	4,150	5,450	150	-1,150
Manufacturing	2,300	2,150	2,400	150	-100
Transportation	9,200	8,850	9,550	350	-350
Trucking & Warehousing	1,450	1,350	1,650	100	-200
Water Transportation	350	250	350	100	0
Air Transportation	3,100	3,050	3,150	50	-50
All Other Transportation	4,300	4,200	4,400	100	-100
Trade	22,850	22,550	22,950	300	-100
Wholesale	5,350	5,250	5,450	100	-100
Retail	17,500	17,300	17,500	200	0
Gen.Merch. & Apparel	2,300	2,300	2,300	0	0
Food Stores	2,850	2,850	2,750	0	100
Eating & Drinking Pl.	6,750	6,650	6,850	100	-100
All Other Retail	5,600	5,500	5,600	100	0
Finance-Ins. & R.E.	7,050	7,050	7,550	0	-500
Services	23,400	23,150	24,250	250	-850
Government	25,400	25,900	26,450	-500	-1,050
Federal	10,300	10,300	10,300	0	0
State	6,400	6,950	6,550	-550	-150
Local	8,700	8,650	9,600	50	-900

Fairbanks

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	25,350	24,750	25,700	600	-350
Mining	100	50	150	50	-50
Construction	1,550	1,250	1,550	300	0
Manufacturing	500	500	500	0	0
Transportation	2,100	2,000	2,200	100	-100
Trucking & Warehousing	350	350	350	0	0
Air Transportation	350	350	350	0	0
All Other Transportation	1,400	1,300	1,500	100	-100
Trade	5,750	5,350	5,650	400	100
Wholesale	700	700	750	0	-50
Retail	5,050	4,650	4,900	400	150
Food Stores	800	750	700	50	100
All Other Retail	4,250	3,900	4,200	350	50
Finance-Ins. & R.E.	850	850	900	0	-50
Services	5,300	5,300	5,500	0	-200
Government	9,200	9,450	9,250	-250	-50
Federal	2,900	2,750	2,950	150	-50
State	3,650	4,100	3,550	-450	100
Local	2,650	2,600	2,750	50	-100

Anchorage-MatSu

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	104,300	103,400	108,400	900	-4,100
Mining	3,500	3,550	3,200	-50	300
Construction	4,500	4,300	5,700	200	-1,200
Manufacturing	2,400	2,250	2,450	150	-50
Transportation	9,850	9,500	10,250	350	-400
Trade	24,400	24,050	24,700	350	-300
Finance-Ins. & R.E.	7,500	7,450	8,000	50	-500
Services	24,450	24,050	25,300	400	-850
Government	27,700	28,250	28,800	-550	-1,100

Interior

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	29,300	28,400	29,950	900	-650
Mining	300	200	300	100	0
Construction	1,700	1,350	1,750	350	-50
Manufacturing	500	500	550	0	-50
Transportation	2,400	2,250	2,550	150	-150
Trade	6,150	5,750	6,100	400	50
Finance-Ins. & R.E.	950	900	1,000	50	-50
Services	5,700	5,650	6,000	50	-300
Government	11,600	11,800	11,700	-200	-100

Gulf Coast

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	19,850	18,750	20,200	1,100	-350
Mining	750	750	800	0	-50
Construction	900	750	1,000	150	-100
Manufacturing	3,750	3,300	3,950	450	-200
Seafood Processing	3,150	2,700	3,350	450	-200
All Other Manufacturing	600	600	600	0	0
Transportation	1,250	1,250	1,300	0	-50
Trade	3,800	3,400	3,800	400	0
Wholesale	550	400	550	150	0
Retail	3,250	3,000	3,250	250	0
Finance-Ins. & R.E.	550	550	550	0	0
Services	3,350	3,150	3,350	200	0
Government	5,500	5,600	5,450	-100	50
Federal	550	500	550	50	0
State	1,500	1,600	1,450	-100	50
Local	3,450	3,500	3,450	-50	0

Southeast Alaska

	Changes From:				
	p/ 5/88	r/ 4/88	5/87	4/88	5/87
Nonag. Wage & Salary	28,900	28,150	29,300	750	-400
Construction	1,050	900	1,200	150	-150
Manufacturing	4,150	3,950	4,200	200	-50
Seafood Processing	800	800	1,000	0	-200
Lumber & Paper Prod.	3,100	2,950	3,000	150	100
All Other Manufacturing	250	200	200	50	50
Transportation	2,100	2,000	2,100	100	0
Trade	4,450	4,300	4,650	150	-200
Wholesale	400	400	400	0	0
Retail	4,050	3,900	4,250	150	-200
Finance-Ins. R.E.	1,100	1,100	1,050	0	50
Services	4,650	4,450	4,750	200	-100
Government	11,250	11,300	11,300	-50	-50
Federal	1,950	1,900	1,950	50	0
State	5,100	5,200	5,050	-100	50
Local	4,200	4,200	4,300	0	-100

would seafood processing employment growth decline so rapidly?

The answer is off-season increases in seafood processing employment (see Figure 2). In other words, employment in that industry increased during the month opposite the peak salmon season (June to September). The key to this trend is the fast developing bottomfishery. This segment of the industry had strong over-the-year employment growth until May. Combined with a good herring fishery earlier in the year, seafood processing showed unusual strength through April. Since that time, activity has slowed until preparation for the salmon season begins.

Seafood processing employment this summer will register only small, if any, over-the-year gains. Hence, the extra nudge the industry provided to total employment levels will be absent during the summer, but will again present itself in October.

The higher levels of off season processing employment also impacted April to May hiring trends. Because of their higher than normal April employment levels, the processors hired fewer additional workers to meet May personnel needs. For example, month-to-month employment increases this year were 1,100 compared to 1,900 last year, but employment remains above that of a year ago. Hence, less than the normal number of seasonal hires this May did not reflect a weak industry. In fact, it represents just the opposite.

The government employment figures added their own twist into May's employment scene. Last year, for example, the net result of seasonal hiring and layoffs by the government, was a decline of 300 jobs from April to May (an increase of 400 in federal and local government jobs, offset by a 1,100 decline in state government). In contrast, government employment this May declined by 1,000 (200 increase in federal jobs, combined with a 1,200 decline in the state and no change for local government). For the most part, these figures are due to the timing and magnitude of seasonal employment shifts.

The cumulative effects of lower revenues will have negative impacts on local government during the next

year. The stretching of local government revenues will eventually make its way into the employment figures. The employment declines will depend upon how local governments wrestle with less operating revenue dollars. State government with its slightly greater operating budget will have some employment gains through 1988. In fact, state government employment for the past several months before May had already begun to recover. Federal civilian employment will stay relatively stable. In summary, for the remainder of the year state government employment will offset local government layoffs

and federal government employment will remain neutral.

Languid seasonal increases in the construction industry also contributed to the weak seasonal increase in total employment levels for May. Construction employment always increases in May, even during the worst of times, but this year's increase was minimal at best. For example, construction employment increased by 800 this year from April to May compared to 1,300 last year. Unlike seafood processing and government the declines are not primarily caused by timing, but are signs of a weak and

Figure 1
Alaska Employment Percent Change
November 1987 - May 1988

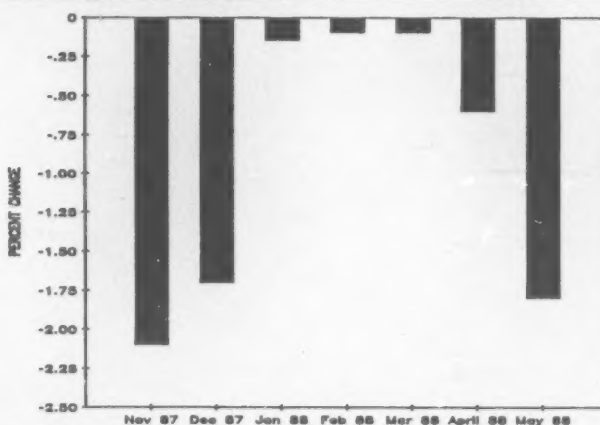


Figure 2
Alaska Seafood Processing Employment
January 1986 - May 1988

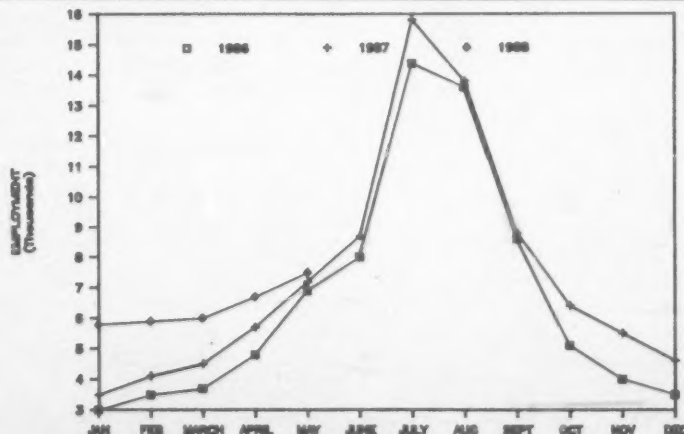


Table 3
Alaska Hours and Earnings for Selected Industries ^{1/2}

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 5/88	R/ 4/88	5/87	P/ 5/88	R/ 4/88	5/87	P/ 5/88	R/ 4/88	5/87
Mining	\$1,177.02	\$1,202.67	\$1,126.17	48.9	49.8	47.8	\$24.07	\$24.15	\$23.56
Construction	1,022.17	1,001.61	957.59	41.2	41.1	39.8	24.81	24.37	24.06
Manufacturing	459.73	473.40	508.04	36.4	37.1	42.8	12.63	12.76	11.87
Seafood Processing ..	284.23	302.12	319.49	31.9	33.2	41.6	8.91	9.10	7.68
Lumber & Paper Prod ..	654.31	642.82	721.18	44.3	43.2	46.2	14.77	14.88	15.61
Trans., Comm. & Util. ..	551.20	581.89	570.02	34.3	36.3	36.1	16.07	16.03	15.79
Trade	366.30	376.87	361.86	33.0	33.8	32.6	11.10	11.15	11.10
Wholesale	528.43	528.63	505.59	38.6	39.1	38.1	13.69	13.52	13.27
Retail	311.31	324.16	313.14	31.1	32.0	30.7	10.01	10.13	10.20
Finance-Ins. & R.E.	383.07	393.70	379.22	33.9	35.5	33.5	11.30	11.09	11.32

Benchmark March 1987

¹ Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

² excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

declining industry. This sector will be among the last of the economic sectors to recover from the recession.

In the end analysis, May's figures do not indicate a real deterioration in the Alaska employment scene, but rather a combination of anomalies. The one major exception is the construction industry. Employment trends in that sector are deviating from the rest of the economy. Most, if not all, industries will recover long before the ailing construction industry.

Another indicator suggesting that the Alaskan economy is on the recovery road is the change in unemployment figures. In May, the statewide rate fell to 9.4%, a four-tenths of a percentage point decline from April's rates (Table 4). More significantly, compared to last May the rate has fallen nearly two percentage points. This is the lowest unemployment rate for May since 1981.

Regional Employment Picture

May employment trends varied from region to region depending upon their industry mix. One pattern is clear in the May figures. The apparent employment trend swings were greatest in those regions with the highest concentration of manufacturing employment.

In fact, the Gulf Coast and Southeast regions had been experiencing over-the-year employment gains in 1988 until May. In the Gulf Coast region, growth was essentially due to the rapidly expanding bottom fish processing employment. In the Southeast region, it was a combination of seafood processing and lumber and pulp employment increases which led to overall employment growth. In May, growth in those industries slowed and in some cases ceased, causing total employment figures to show over-the-year declines. However, the change in the employment trends in May, from growth to decline, is not a sign that their economies were heading into a downward spiral. Instead, the May trends were an aberration caused mainly by seasonal fluctuations of the manufacturing industries (seafood processing and lumber and pulp).

The unemployment rate for these two regions support the view that their economies are on the recovery path from the recession. Gulf Coast and its subregions experienced seasonal and annual improvements in their unemployment rates. The Southeast and its subregions overwhelmingly saw improvement in both seasonal and annual unemployment rates.

The wage and salary employment trends for the Fairbanks/Interior region changed insignificantly in May. In this region the seafood processing employment phenomena did not exist. However, with employment growth in state government and increases in military population the secondary industries are beginning to show over-the-year employment gains particularly the trade industry. The unemployment rates for the entire Interior region fell nearly a percentage point between April and May and was 3.5 points below the year-ago rate. Unemployment rates in this region have not been this low in May since 1982.

The employment levels for Anchorage and MatSu areas experienced an acceleration in the over-the-year decline in May, but not as severe as statewide. Since the region has little seafood processing employment the impacts of the off season phenomenon were minimal. It was the anemic construction employment upturn which caused over-the-year employment comparisons to be less favorable than the last few months. While the Anchorage/MatSu region's employment figures show over-the-year declines of nearly 4%, the worst declines in the state, the region is slowly joining the rest of the state in a recovery from the recession. As with most regions in the state the

Table 4
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 5/88	R/ 4/88	5/87	P/ 5/88	R/ 4/88	5/87	P/ 5/88	R/ 4/88	5/87	P/ 5/88	R/ 4/88	5/87
Alaska Statewide	247,493	245,932	254,026	23,286	24,167	29,125	9.4	9.8	11.5	224,207	221,765	224,901
Anch.-MatSu Region	127,917	128,031	133,155	10,903	11,083	13,871	8.5	8.7	10.4	117,014	116,948	119,284
Anchorage Borough	113,142	113,604	117,211	8,553	8,723	10,843	7.6	7.7	9.3	104,589	104,881	106,368
MatSu Borough	14,775	14,427	15,944	2,350	2,360	3,028	15.9	16.4	19.0	12,425	12,067	12,916
Gulf Coast Region	27,808	26,943	27,930	3,245	3,552	3,691	11.7	13.2	13.2	24,563	23,391	24,239
Kenai Peninsula Bor ...	17,599	17,120	17,989	2,258	2,511	2,850	12.8	14.7	15.8	15,341	14,609	15,139
Kodiak Island Bor	5,164	5,920	5,991	508	534	410	8.2	9.0	6.8	5,656	5,386	5,581
Valdez-Cordova	4,045	3,903	3,950	479	507	431	11.8	13.0	10.9	3,566	3,396	3,519
Interior Region	37,378	36,921	38,591	4,675	4,939	6,135	12.5	13.4	15.9	32,703	31,982	32,456
Fairbanks North Star Br	32,006	31,580	33,048	3,751	3,948	5,005	11.7	12.5	15.1	28,255	27,632	28,043
South-east Fairbanks ...	2,242	2,219	2,285	334	353	392	14.9	15.9	17.2	1,908	1,866	1,893
Yukon-Koyukuk	3,130	3,122	3,258	590	638	738	18.8	20.4	22.7	2,540	2,484	2,520
Northern Region	8,318	8,341	8,272	829	819	1,096	10.0	9.8	13.2	7,489	7,522	7,176
Nome	3,228	3,258	3,223	379	396	493	11.7	12.2	15.3	2,849	2,862	2,730
North Slope Borough ..	2,912	2,903	2,845	155	134	203	5.3	4.6	7.1	2,757	2,769	2,642
Northwest Arctic Bor ...	2,178	2,180	2,204	295	289	400	13.5	13.3	18.1	1,883	1,891	1,804
Southeast Region	33,409	33,317	34,092	2,470	2,641	3,153	7.4	7.9	9.2	30,939	30,676	30,939
Haines Borough	870	862	884	90	88	104	10.3	10.2	11.8	780	774	780
Juneau Borough	14,589	14,489	14,871	794	811	1,076	5.4	5.6	7.2	13,795	13,678	13,795
Ketchikan Gateway Br	6,555	6,589	6,790	442	528	677	6.7	8.0	10.0	6,113	6,061	6,113
Pr. of Wales-Outer Ktch	2,569	2,564	2,577	352	366	360	13.7	14.3	14.0	2,217	2,198	2,217
Sitka Borough	3,954	3,860	4,063	244	181	353	6.2	4.7	8.7	3,710	3,679	3,710
Skagway-Yakutat-Ang	1,613	1,706	1,568	243	348	198	15.1	20.4	12.6	1,370	1,358	1,370
Wrangell-Petersburg	3,259	3,247	3,339	305	319	385	9.4	9.8	11.5	2,954	2,928	2,954
Southwest Region	12,663	12,379	11,986	1,164	1,133	1,179	9.2	9.2	9.8	11,499	11,246	10,807
Aleutian Islands	3,458	3,362	3,245	147	124	133	4.3	3.7	4.1	3,311	3,238	3,112
Bethel	4,922	4,800	4,705	510	485	559	10.4	10.1	11.9	4,412	4,315	4,146
Bristol Bay Borough ...	439	447	406	40	57	31	9.1	12.8	7.6	399	390	375
Dillingham	2,212	2,201	2,165	157	192	234	7.1	8.7	10.8	2,055	2,009	1,931
Wade Hampton	1,632	1,569	1,465	310	275	222	19.0	17.5	15.2	1,322	1,294	1,243

P/ Preliminary

R/ Revised

1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

Anchorage/MatSu unemployment rate fell from April to May and more significantly was nearly two percentage points below the May 1987 rate. The 8.5% rate was the lowest unemployment rate since 1985.

Conclusion

For most of a year Alaska's employment declines had been moderating. Indeed, the March 1988 figures were within grasp of showing employment increases. The first impression gained from the May figures was that the improvement had run out of gas and another period of increased employment losses was looming around the corner. An industry analysis reveals, however, that most of the declines were caused by anomalies in seafood processing and government trends.

Alaskans will continue to see slow improvements in the economy through 1988. Indeed some regions have already had a taste of employment growth, while others, particularly Anchorage/MatSu, have a ways to go before they catch the rest of the state in the improvement process. The major short term obstacle for many regions will be how they cope with local government budget problems.

ALASKA ECONOMIC TRENDS
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EMPLOYMENT SECURITY DIVISION
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ALASKA ECONOMIC TRENDS



**A Profile of the Poverty
Population and Low- Wage
Occupations**

**Alaska's
Northern Region**

**Alaska's Employment
Scene**



Alaska Economic Trends

Steve Cowper, Governor, State of Alaska

**Jim Sampson, Commissioner
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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.

R/ Denotes revised estimates.

A Profile of the Poverty Population and Low-Wage Occupations

By Dr. Terry Elder

Introduction

In recent months, the federal government and some state governments have focused on the issue of poverty in the United States, and on the proposal to increase the federal minimum wage, which has not been increased above the \$3.35 level it reached in 1981. While the federal debate continues, some states, such as California, already have enacted increases in their state's minimum wage. One example of the current debate in Congress is reported in the March 16, 1988, issue of the *Employment and Training Reporter*. The article describes H.R. 1834, which passed out of the House Education and Labor Committee on March 10 by a vote of 18-14. The bill would raise the federal minimum wage by \$1.70 to \$5.05 in four steps: \$.50 effective January 1, 1989; \$.40 on January 1 of 1990 and 1991; and \$.40 on December 31, 1991. The bill does not include the sponsor's, Rep. Augustus Hawkins (D-CA), desire to index the minimum wage to 50% of the national average hourly earnings.

The controversy centers around whether or not increasing the minimum wage is an effective tool in lifting people out of the grasp of poverty. Some people, including many labor leaders, support an increase on the basis that it helps the "working poor" and that honest labor should provide a "livable" wage. Other people, including many academic economists, oppose an increase to the minimum wage. They believe an increase would result in less employment for many who live in poverty, and that as an antipoverty tool the minimum wage is at best inefficient and at worst counterproductive.

The purpose of this article is not to take sides in the issue of the minimum wage, but to discuss the demographic characteristics of the poverty population in the United States and Alaska, using Bureau of the Census data, and to consider the occupational groupings which appear to be associated with poverty in Alaska. The objectives of the article are to focus attention on the scope of the problem and to understand the characteristics of the people who are most impacted.

This article first will discuss the composition of the population living in poverty nationally, and then will discuss the poverty population in Alaska. Most of the percentages referred to in the discussion of poverty in Alaska are based on the national definition of poverty-level income. Many people believe that given the high cost-of-living in Alaska, 125% of the national definition of poverty-level income would produce a more comprehensive view of Alaska's poverty population. While this would increase the number of persons living in poverty, it would not change the composition of the poverty population enough to make a difference in the observations made in this article.

The observations about poverty in this report are based on data which is reported by the Bureau of the Census as a result of the 1980 census. No thorough, reliable information on poverty on a state level is available since the census. The Bureau agrees that broad observations based on that census are still valid today. The next section describes the demographic characteristics of the people living below the poverty threshold in the nation, according to the 1980 census.

In 1986, the poverty threshold for a family of four was \$11,203.

Assuming a current population of 540,000 . . . there would be about 57,800 persons in poverty in Alaska.

The National Profile of Poverty

The Census Bureau each year estimates the money income which it calls the "poverty threshold." This is the amount of money income which the Bureau believes is necessary to provide the basics. It is based on estimated food requirements, and the percentage of income spent on food. For this reason, the threshold differs depending on the number of persons living in the family. In 1979, the poverty threshold for a family of four was \$7,412. If all of this income was provided by one person, earning wages, it equates to a full-time wage of \$3.56/hour for a 40-hour work-week. In 1986, the poverty threshold for a family of four was \$11,203 due to increases in consumer prices. Again assuming one person provides the income, only from wages, the full-time wage is about \$5.39/hour.

That is a simplification, of course, since not all family income is generated from wages, and not all family income is provided by one person in a family unit. While about 83% of income of all families is wage income, for those below the poverty threshold wage income provides only about 45% of income. Some other sources of family income are social security income, pension and investment income, and public assistance. A thorough analysis of the incidence of poverty would require investigation of all of these sources of income and of hourly wage rates as well as hours worked. However, for the descriptive objectives of this article, it may be assumed that a wage rate of about \$5.39/hour for a full-time, 40-hour/week job was probably slightly above the poverty threshold in 1986. This wage rate will be used later in describing occupations which tend to be associated with poverty in Alaska, but first, the characteristics of the national poverty population will be discussed.

About 11.2% of all persons over 14 years of age (and 13% of all persons) lived below the poverty threshold in 1979. More recent national data suggest this percentage has increased slightly. Of those living in poverty, 69.6% were white, 62.9% were female, 20.7% were less than 22 years old, and 19.8% were over 64 years old. Comparing the sex, race, and age

characteristics of the poverty population to those characteristics of the population as a whole, it is found that those in poverty tended to be more female, more nonwhite, and either younger or older than the general population.

Of all persons below the poverty level, about 40% worked in 1979 and 60% did not work. About 24% worked full time, and 16% worked part time. The average number of weeks worked was 30.2. Compared to the total population, a substantially larger percentage of those in poverty did not work (60% versus 32%), and a smaller percentage worked full time (24% versus 52%). Those in poverty averaged only about 71% of the number of weeks worked by the total population. Slightly more than one-third of the people in poverty who worked less than 50 weeks did so because they were unable to find work. Of all persons in poverty who did not work, only about 7.1% reported that they did not work because they were not able to find work. Other reasons cited for not working included: keeping house, illness, attending school, and retired from the work force.

There were substantial differences between males and females below the poverty level. As a percentage, females were more likely to live in poverty (13.5% of all females versus 8.7% of all males). Males were more likely than females to have ties to the labor force. Slightly more than half of the males below poverty worked in 1979 compared to about one-third of females below poverty. Males were much more likely to work full time; almost half of the males in poverty who worked less than 50 weeks did so because they could not find work. In comparison about one-fourth of females were impoverished and could not find work. Of those in poverty, 46% of males did not work compared to 68% of females. Of those who did not work, about 12% of males and 5% of females did not work because they could not find work.

Black males and females were three times more likely than white males and females to live in poverty. All four of these social groups below the poverty threshold worked substantially fewer hours per week than their group averages. A more detailed anal-

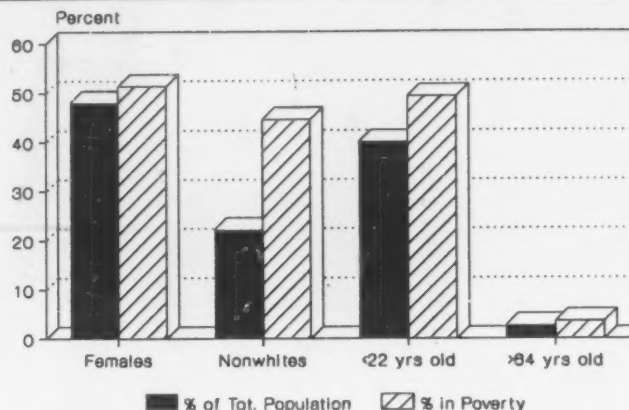
ysis of racial differences is beyond the scope of this article.

The Alaska Profile of Poverty

The 1980 census reports that about 42,000 persons in Alaska lived below the national poverty income level. That represented about 10.7% of the state's estimated total population. Considering a poverty threshold equal to 125% of the national level, there were 55,900 persons in poverty in 1979 (a poverty rate of 14.4%). Assuming a current population of 540,000, if everything else is the same today, there would be about 57,800 persons in poverty in Alaska and 79,400 people would be living below 125% of the national poverty income level.

Table 1 shows the percentage of the poverty population in Alaska, at the

Figure 1
Poverty Incidence in Alaska—Select Groups



source: 1980 Census Data

Table 1
Demographic Characteristics of Alaska Poverty Population
at Various Levels of Poverty, 1979

Characteristic	Percent Poverty Population		Percent Total Population
	100% of Threshold Level	125% of Threshold Level	
Sex			
Female	51.4%	50.8%	48.0%
Male	48.6	49.2	52.0
Race			
White	55.4	56.2	77.8
Native	38.9	37.1	16.2
Other	5.7	6.7	6.0
Location			
Rural	54.9	53.0	35.9
White % of rural	43.0	43.2	66.2
Native % of rural	55.6	55.4	31.8
Other % of rural	1.4	1.4	2.0
Nonrural	45.1	47.0	64.1
White % of nonrural	70.4	70.9	84.2
Native % of nonrural	18.5	16.6	7.5
Other % of nonrural	11.1	12.5	8.2
Age			
Under 22 years old	49.3	49.9	40.0
Age 22-63	47.1	46.5	57.3
Over 64 years old	3.6	3.6	2.7
Selected Family Characteristics			
Live in family	75.1	77.8	85.9
Unrelated individuals	24.9	22.2	14.1
Related children under 18	37.1	38.3	32.9

Source: U.S. Department of Commerce, Bureau of the Census, 1980 Census, *Detailed Population Characteristics, Alaska* PC80-1-D3, Table 245.

Those in poverty tended to be more female, more nonwhite, and either younger or older than the general population.

national poverty income threshold and at 125% of the national poverty income threshold, with various demographic characteristics, and the percentage of the total population with those characteristics.

While about 10.7% of persons in Alaska were below the poverty threshold, 7.7% of whites and 25.7% of Natives were in that category. The percentage was a little higher in rural areas, with 10.7% of rural whites and 28.7% of rural Natives in poverty. The poverty rate was higher among unrelated individuals than among families. About 86% of persons lived in families, and 9.4% of these persons lived in poverty. About 14% of persons were unrelated individuals, and 19% of these were in poverty. The poverty rate of rural, unrelated Natives was 46.6%. The tendency to have higher poverty rates among rural and Native persons holds both for persons in families and for unrelated individuals. Natives tended to be younger (less than 22 years old) and older (over 64 years old), and tended more to live in families (91% versus 85%) compared to whites.

The educational attainment of persons in poverty was lower than that of the general population. About 83% of all families were headed by a high school graduate (89% of white families and 45% of Native families). Only about 63% of families in poverty were headed by a high school graduate (79% of white families in poverty and 35% of Native families in poverty). Similarly, unrelated individuals show the same pattern. About 83% of unrelated individuals were high school graduates (87% of whites and 54% of Natives). Only about 67% of unrelated individuals in poverty were high school graduates (76% of whites and 41% of Natives).

The mean income deficit (the mean amount of money income below the appropriate poverty threshold) of a family of four was about \$3,200 in 1979. The deficit of Native families was about \$340 greater than that of white families, and the deficit of rural families was about \$200 greater than the average deficit. Since the poverty threshold is generally based on the cost of food per individual and on the percentage of a total budget which is spent on food, it is logical to conclude

that subsistence probably plays a positive role in narrowing the gap between whites and Natives, and between rural and urban persons. It is difficult to imagine subsistence closing the entire gap between money income and the poverty threshold, given the absolute size and the percentage of the gap, and considering the cost of living in rural areas. The Division of Subsistence in the Department of Fish and Game has conducted studies of areas and villages which show that subsistence activities provide an important percentage of the food requirements in those areas. In order to be directly useful in the context of this discussion of poverty, however, a study would have to put a dollar figure on the food source by household, and would have to count the money income by household in order to calculate an "adjusted" family income which would reflect subsistence activities.

About 37.6% of families below the poverty threshold did not have work income in 1979 (34.0% of white families in poverty and 41.7% of Native families in poverty). Also, 42.6% of unrelated individuals (40.2% of white and 50.1% of Native unrelated individuals) did not have work income in 1979. Further, only 1.7% of all families were in poverty when the householder worked over 50 weeks (1.7% of white and 2.6% of Native families), while 19.3% of families were in poverty when the householder worked less than 27 weeks (15.4% of white and 34.4% of Native families).

A Profile of Low-Wage Occupations in Alaska

Analysis of the occupational groupings of employed householders who lived in families below the poverty threshold, suggests that some occupational groupings are associated more consistently with poverty when compared to other occupational groupings. Those major occupational categories are as follows: private household occupations; sales; administrative support, including clerical; miscellaneous service occupations; farming, fishing, and forestry occupations; and helpers and laborers. The connection of these groups with the occurrence of poverty may be due to relatively low wages, seasonal employment, employment

turnover, or any combination of these factors.

These broad occupational groupings are reflected in a list of low-wage employment orders reported by Job Service for the four quarters ending June 30, 1987. As mentioned earlier, one way to define a low wage is to calculate the hourly rate of a full-time job that would provide a family income equal to the poverty threshold (assuming that one person in the family provides the wage income). For a family of four, that hourly rate in 1986, as calculated above, is \$5.39. If wage income is required only to equal 82.8% of family income which it does for families with incomes above the poverty threshold, then the poverty-level hourly rate would be \$4.46. Job Service reports that about 43% of its orders were for jobs that offered less than \$6/hour, and 12% offered less than \$5/hour.

A review of the individual occupations and of the occupational groupings suggests that these occupations are often seasonal, require relatively little prior education and training, and are not associated with high training costs, thereby allowing for a higher than average employee turnover rate.

Conclusion

An analysis of census data reveals that the demographic characteristics of the poverty population in Alaska are similar to those of the national poverty population. The poverty population is composed of unrelated individuals, females, nonwhites, rural citizens, the old and the young in larger proportions than would be expected from the composition of the population as a whole. Since there are more white, nonrural people in the population, in numerical terms the largest group of persons in poverty in Alaska is white, nonrural females. It is also evident, from both national and state data, that those who live in poverty tend to have loose ties to the labor force. Poverty is associated with the absence of work, with the lack of full-time work, and with low-wage occupations which may be seasonal or subject to high employment turnover.

While the debate goes on about the positive and negative aspects of mini-

mum wage legislation as a tool to fight poverty, there is no debate concerning the objective of eliminating poverty and the social ills that accompany it. General economic development which increases job opportunities, especially high-wage opportunities, helps everyone. Education and training help to provide skills to the unskilled people who may have strong ties to the labor force but who cannot qualify for the types of jobs that offer high wages and/or consistent work.

Table 2
Low-Wage Jobs Listed with Alaska Job Service
(four quarters ending 6/30/87)

Job Title	Average Wage
Grocery Bagger	\$4.37
Bus Cleaner	5.23
Service Station Attendant	4.97
Cannery Worker	5.77
Landscaper	4.93
Day Care Worker	5.09
House Cleaner	5.51
Dishwasher	5.15
Waiter/Waitress	4.45
Fast Food Worker	4.07
Merchandise Deliverer	4.80
General Merchandise Sales	5.46
Office Helper	5.57
Clerk	5.76
Cashier	5.33
Recreation Leader	5.44

Source: Alaska Department of Labor, Employment Security Division.

References:

Bureau of the Census. *Detailed Population Characteristics: Alaska* Publication PC80-1-D3, Tables 245-250. Washington, D.C.: September 1983.

Bureau of the Census. *Characteristics of the Population Below the Poverty Level: 1980*. Publication P-60, No. 133, Table 14. Washington, D.C.: July 1982.

Employment and Training Reporter Manpower Information, Inc., a division of The Bureau of National Affairs, Inc. Washington, D.C.: March 16, 1988, page 638.

Alaska's Northern Region

By Neal Fried

A Common Thread

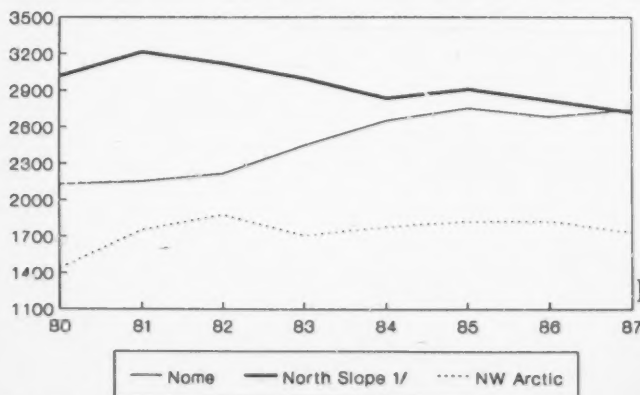
Job opportunities are scarce; subsistence is a way of life; roads connecting the region to the rest of the state are virtually nonexistent; government is the major source of employment; subsurface minerals are abundant; and almost three quarters of its residents are Inupiaq Eskimo. These attributes weave a common thread through the Northern region of Alaska which includes the Nome census area, the Northwest Arctic Borough, and the North Slope Borough.

The region is characterized by small communities. Of the region's 37 communities, 19 have populations of 250 or fewer, and there are only three with more than 1,000 inhabitants. None has a population greater than 3,500. Barrow, Kotzebue, and to a lesser extent Nome operate as administrative and supply centers for the two boroughs and one census area. They are the only communities in the region that provide significant wage and salary employment opportunities to their residents.

The scarcity of economic and employment opportunities for two-thirds of the region is clearly reflected in per capita income figures. For example, Northwest Arctic Borough's 1986 per capita income of \$12,613 ranked 19th in the state (out of 23) and was only 70% of the statewide per capita income of \$17,969. Nome did not come in much higher at \$13,747. On the other hand the North Slope Borough's per capita income of \$21,590 ranked fourth in the state.

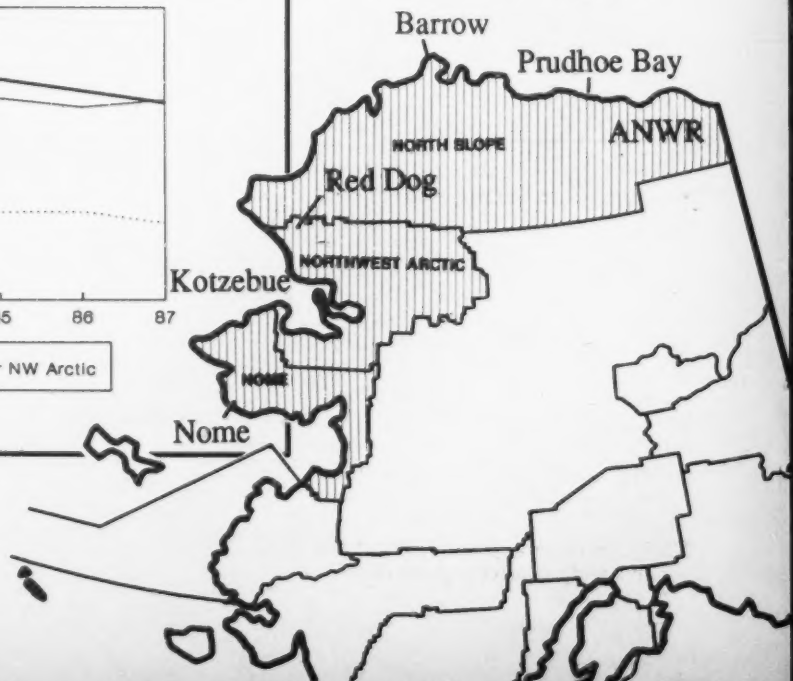
Lack of employment opportunities and low incomes have also led to a higher incidence of poverty in the region. The incidence of poverty is more than twice as high in the Northwest Arctic Borough and Nome than statewide (27% and 28% versus 11% for the state). The North Slope Borough has been more fortunate; its rate is similar to the state's.

Figure 1
Northern Region Employment 1980-1987



1/ Excludes Prudhoe Bay

Northern Region



On a positive note, the state's recession did not take as great a toll on the region's employment as it did elsewhere. With the exception of the North Slope Borough, little or no employment losses are evident (figure 1). This is largely because of the region's disproportionately large public sector. The public sector has experienced employment losses, but they have been smaller than losses in the private sector.

The high cost of living and doing business in the Northern region adds an additional economic burden. According to a study commissioned by the state, the cost of living for the Barrow/Kotzebue and Nome areas run 45% and 33% above Anchorage. A Cooperative Extension Service survey put the cost of a weekly food bill for a family of four in Nome at \$149 and in Kotzebue at \$141, compared to \$87 in Anchorage. For Savoonga, one of the region's more remote communities, the costs rose to \$202. This is probably a typical price for most of the region's smaller communities.

Subsistence is an economic and employment activity that takes place in the entire region but is not captured in our statistics. A survey conducted in 1974 found that more than 70% of the Northwest Arctic Borough residents rely on subsistence for more than half of their diet. Attempts have been made to quantify this activity in an economic sense, but none has been completely successful. Part of the problem of quantifying the economic value of subsistence is that it is also a cultural activity. Subsistence is a more important source of non-cash employment in the region's smaller villages where other employment opportunities are scarce, but it also remains important in the regional centers.

Though all of these areas share many common attributes, they also have their distinct economic identities. Nome for example is the major gold producing region in the state. The Northwest Arctic Borough, established a little over a year ago, is moving headlong into the development of the largest unmined lead-zinc deposit in the world—Red Dog. The North Slope Borough is the home of the largest industrial complex in the state and the largest oil field in the nation.

This article will discuss these three different areas' economies. It will point out their similarities and differences and examine major developments that are, or will be, creating changes in the economic lives of the region's inhabitants.

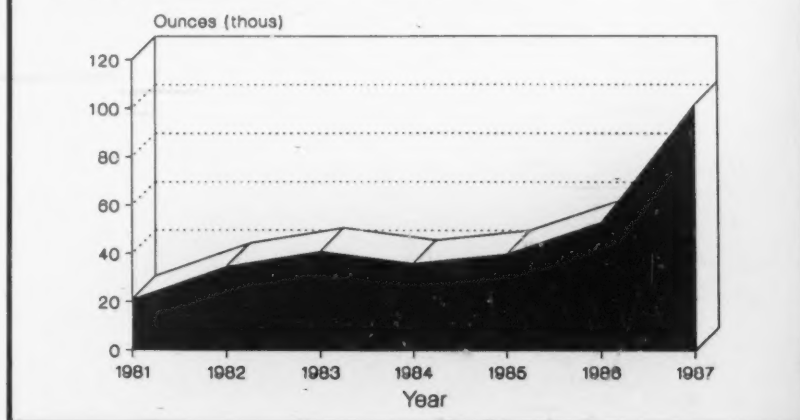
Nome—Gold's Resurgence

The City of Nome is reclaiming its historical place as a major gold producer in the state. Gold mining activity in the vicinity of Nome has experienced a major revival. Gold mining employment in the Nome region grew from 62 in 1985 to 144 in 1987. During the summer of 1987, mining employment peaked at 247 in August.

A big share of the employment growth came with the introduction of WestGold's 14-story floating dredge, the *Bima*, in 1986. Brought in from Indonesia, the *Bima* dredges offshore, unlike the other dredges in Nome which mine the ground. WestGold will employ 119 workers this year. WestGold was the largest gold producer in Alaska in 1987. The Alaska Gold Company is the other large gold operator in Nome. In 1986 only one of Alaska Gold's dredges was operational, but in 1987 another dredge was brought on line. In 1987 the western mining district (includes Nome) produced 101,250 ounces of gold compared to 53,000 ounces in 1986 (figure 2).

Gold mining activity in the vicinity of Nome has experienced a major revival.

Figure 2
Gold Production
Western Mining District 1981-1987



Other large gold mining projects are being considered in the Nome region that may push mining employment higher. WestGold is considering adding an additional floating dredge to operate close to shore. The *Bima* could then be used for deeper water mining, for which it was designed. Other companies such as Aspen Exploration Corporation have beefed up their prospecting in the area and are investigating the possibility of hard rock gold production. The federal government is making plans to lease offshore grounds (beyond the three-

mile limit) for gold mining and other mineral production) a first for Alaska. As long as gold prices remain strong, the growth prospects for the gold mining industry in Nome remain bright.

The Rest of the Economy

Gold mining certainly is not Nome's only economic activity, nor is it the dominant economic force. Government is Nome's number one employer—it employs 46.0% of the area's wage and salary work force (figure 3). The federal sector is relatively small, but the state and particularly the local sector are big employers. Some employment was lost on the state level in 1987 because of oil revenue declines. After many years of strong growth in local government, it began to fall victim to declining oil revenues in 1986-87, but by late 1988 these numbers should stabilize.

Unlike the rest of the state's employment, which plummeted in 1986 and 1987, Nome's employment remained relatively stable. The increase in gold activity is one key factor. Its large public sector is the other reason Nome was able to avert the declines. Although the public sector has lost ground, the losses have been smaller than in the private sector.

Figure 3
Nome Census Area
Employment by Industry — 1987

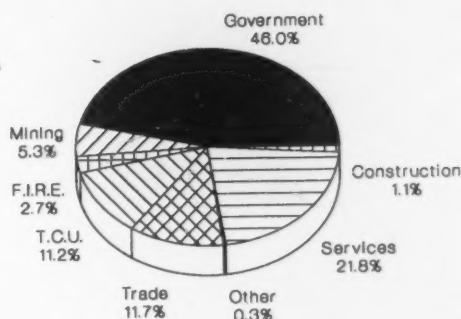


Table 1
Nome Census Area
Employment by Industry
1980-1987

	1980	1981	1982	1983	1984	1985	1986	1987
Total	2,130	2,154	2,216	2,447	2,649	2,751	2,682	2,740
Mining	*	*	*	*	*	62	89	144
Construction	33	39	65	88	86	55	35	30
Manufacturing	*	*	*	*	*	*	*	*
Trans., Comm. & Util.	143	176	160	173	186	201	231	307
Wholesale Trade	0	0	0	0	0	*	*	*
Retail Trade	249	286	303	294	303	311	327	321
Finance-Ins. & R.E.	120	54	54	79	83	103	76	73
Services	602	575	468	512	536	582	583	596
Government	849	913	1,018	1,194	1,346	1,424	1,328	1,261
Federal	161	145	132	157	134	111	99	94
State	178	193	220	244	243	246	242	215
Local	511	575	667	793	969	1,067	987	952
Miscellaneous	*	*	*	*	*	*	*	*

*Nondisclosable

Source: Alaska Department of Labor, ES-202 Files.

Recent employment trends have been better in Nome than elsewhere in the state but employment opportunities are not necessarily plentiful. Employment is often seasonal, and in most of the area's smaller communities opportunities are scarce. Outside of Nome and Unalakleet, the location of Bering Sea School District headquarters, little wage and salary employment exists. The labor force participation rate for the Nome area is 53%, nearly 20 points below the statewide average. The unemployment rate in Nome has consistently remained higher than the statewide average, as illustrated in figure 4. Income and poverty figures mentioned above attest to the lack of employment opportunities. It will take much more than new gold production to provide the Nome area with an adequate economic base able to generate healthy levels of employment.

The North Slope Borough— The Oil Producer

If any economy stands out as unique in Alaska, it is the North Slope Borough (NSB). The borough is made up of eight communities, seven of which have populations of 600 or fewer, and 77% of the inhabitants are Inupiaq Eskimo. Barrow, the administrative and economic center of the borough, has a population of 3,075.

Then there is the other segment of the borough—the largest self-contained petroleum/industrial enclave (Prudhoe Bay) in Alaska. Approximately 5,237 workers live and work in this complex. According to University of Alaska estimates, only 30 North Slope Borough residents worked in the oil industry—the rest came from elsewhere in the state and the nation. This mix has created incredible economic and cultural dynamics in this sparsely populated part of the state.

Although few North Slope residents work in Prudhoe Bay, the borough accrues substantial economic benefits from the site via taxation and other business ventures. In 1987 the borough government collected \$249 million in oil property taxes from the complex, which represents approximately two-thirds of the borough's budget. This rich tax base has enabled the borough to provide employment opportunities, services, and a standard of living unparalleled in arctic Alaska.

This source of tax revenues has made the NSB the central economic player in the area. University of Alaska researchers estimated the borough provided approximately 71% of borough resident employment in 1984.¹ That figure includes employ-

**University of Alaska
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ployment in 1984.**

**Table 2
North Slope Census Area
Employment by Industry
1980-1987**

	1980	1981	1982	1983	1984	1985	1986	1987
Total	6,118	8,761	9,638	10,318	9,581	9,107	8,642	7,956
Mining	2,776	3,860	3,564	3,324	3,605	3,915	3,813	3,925
Construction	706	1,744	2,414	3,242	2,188	1,450	1,128	514
Manufacturing	0	0	0	0	0	•	•	•
Trans., Comm. & Util.	423	492	529	455	439	431	371	326
Wholesale Trade	•	•	•	•	•	•	•	•
Retail Trade	329	265	315	368	412	494	471	421
Finance, Ins. & R.E.	•	95	128	•	•	144	125	130
Services	401	748	1,166	1,110	1,128	1,059	1,014	740
Government	1,408	1,440	1,486	1,604	1,632	1,569	1,681	1,850
Federal	249	241	182	147	143	132	117	156
State	41	19	21	30	35	35	32	28
Local	1,117	1,181	1,284	1,427	1,454	1,402	1,532	1,666
Miscellaneous	•	•	•	•	0	•	•	•

*Nondisclosable

Source: Alaska Department of Labor, ES-202 Files.

Although almost identical in population, NWAB's employment opportunities are roughly 60% of what they are in the North Slope Borough.

ment generated by borough operations, the school district and capital expenditures.

One example of the borough's prominence in the economy was the ambitious capital improvement program (CIP) it undertook in the late 1970s. The borough spent \$1.4 billion dollars from 1978 to 1986 building schools, water and sewage facilities, cultural and health facilities, housing, roads, and other improvements. Spending peaked at \$302 million in 1983. CIP projects provided residents not only with new services and facilities but new jobs. University researchers estimated that in 1983, 603 residents, or 28% of the borough resident work force was employed by these projects.

A growing burden of bond indebtedness, \$232 million in 1988, and concerns about the operating costs of these new facilities has led to a dramatic slowdown in CIP expenditures. Expenditures fell to \$57 million in fiscal year 1988 and are projected to decline to \$25 million in 1989. The dramatic impact of this decline in CIP activity on employment is being eased by two programs established by the borough—the Mayor's Job Program and Resident Employment and Living Improvement program (RELI).

The Mayor's Job Program is creating jobs in the borough's seven smaller

purpose of RELI is to stabilize employment, provide job training and help reduce the cost of living to local residents. It includes energy conservation work, housing improvements, a coal development project, and a long list of other undertakings. The ultimate goal of this approach is to provide a transition from a heavy capital spending economy to sustainable government operation.

Wage and salary employment in the borough outside of Prudhoe Bay was 2,719 in 1987, which represents one-third of total employment in the borough (table 3). Not all of this employment is held by local residents, but most of it is located in the borough's eight communities. The remainder is located on remote military radar sites and oil exploration camps outside of Prudhoe Bay. Employment peaked at 3,215 in 1981. It then began to taper off as the borough's capital improvement program began to wind down. By 1987 employment had fallen to the 2,719 level. These numbers are not expected to change much in the coming years.

Total NSB employment (table 2) peaked at 10,318 in 1983 and continued to slide through 1987. Some of the declines came as a result of the decelerating CIP program, but most of it came as a result of the slowdown in construction activity in Prudhoe Bay. During the past two years, employment declines were exacerbated by the dive in oil prices. Drilling activity, exploration and oil field development fell off dramatically, and employment fell to a low of 7,956 in 1987. By 1988 the employment picture stabilized and is beginning to show signs of resurgence.

Another Prudhoe Bay On The North Slope?

The potential development of the Alaska National Wildlife Refuge (ANWR) looms over the economic horizon of the NSB. ANWR could turn out to be another Prudhoe Bay or it could be a bust. Experts have estimated the reserves could be as large as Prudhoe Bay's. If the development does occur, the benefits to the borough are unclear because of the question of land ownership. Presently most of this property is in federal hands. Whether it remains in federal

**Table 3
North Slope Borough Employment
(Excluding Prudhoe Bay)
1980-1987**

1980	3,018
1981	3,215
1982	3,121
1983	2,996
1984	2,833
1985	2,908
1986	2,816
1987	2,719

Source: Alaska Department of Labor, ES-202 Files.

villages at the cost of \$4.5 million over the next two years. They are short-term jobs designed to generate economic activity and provide additional employment experience to residents. RELI is being funded at \$35 million for the next two years. The